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THE AMERICAN

ELEVATOR AND

GRAIN TRADE

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Established 1852

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Mitchell Brothers Publishing Co.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

One Dollar Per Annum
SINGLE COPIES, 15 CENTS

VOL. XLVII

431 South Dearborn Street, Chicago, Ill., December 15, 1928

NO. 6

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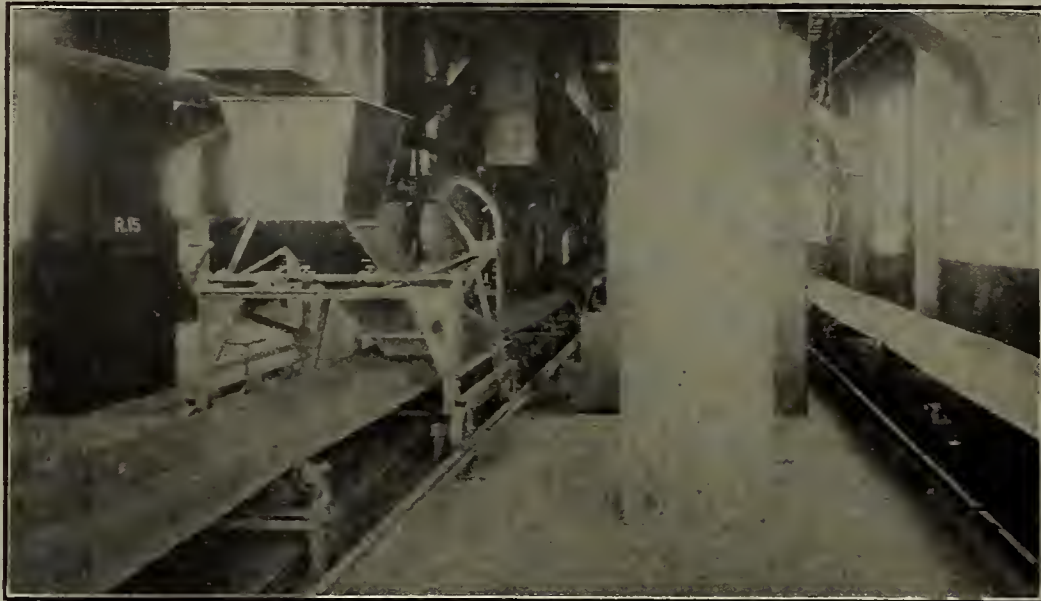
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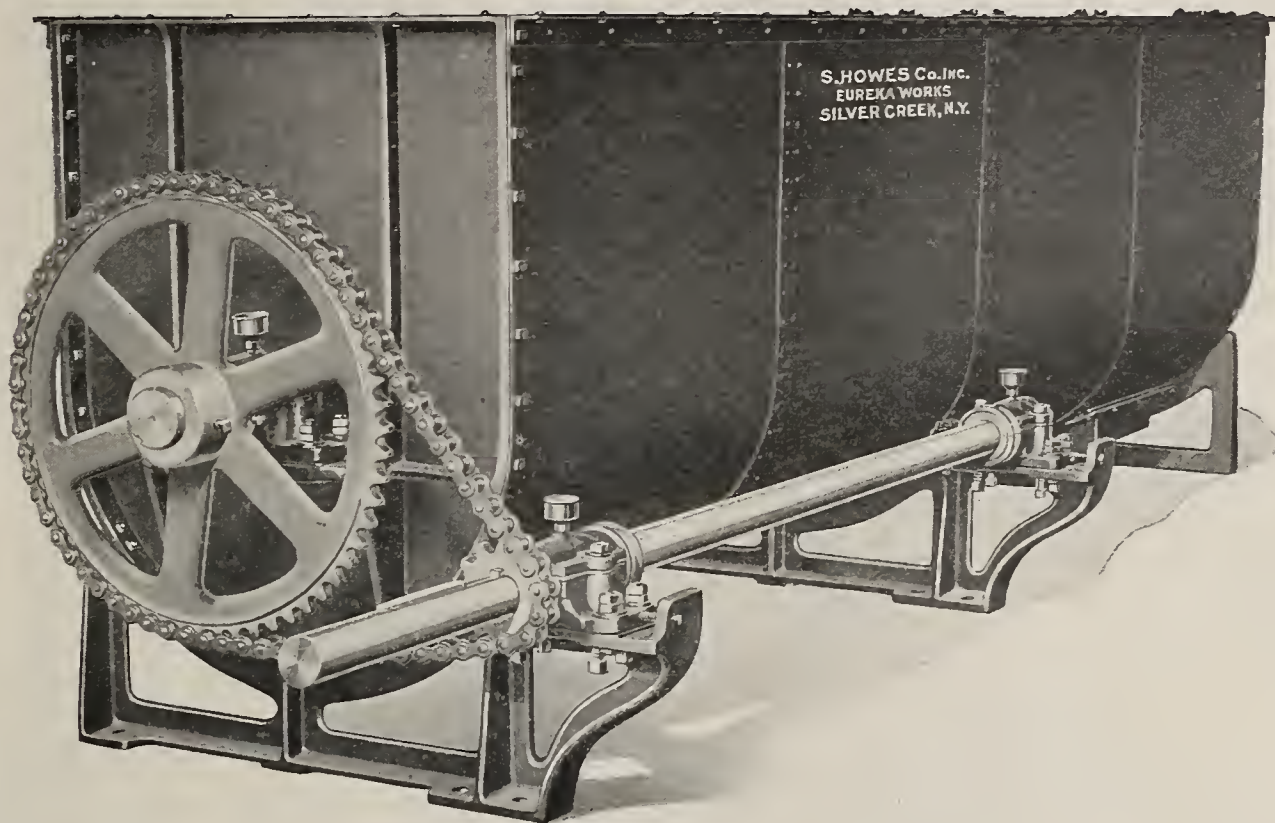
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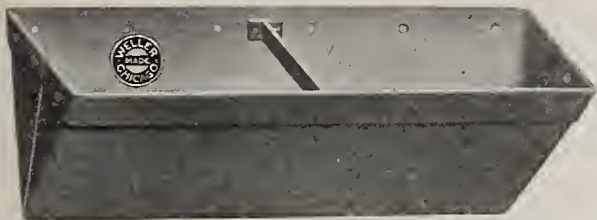
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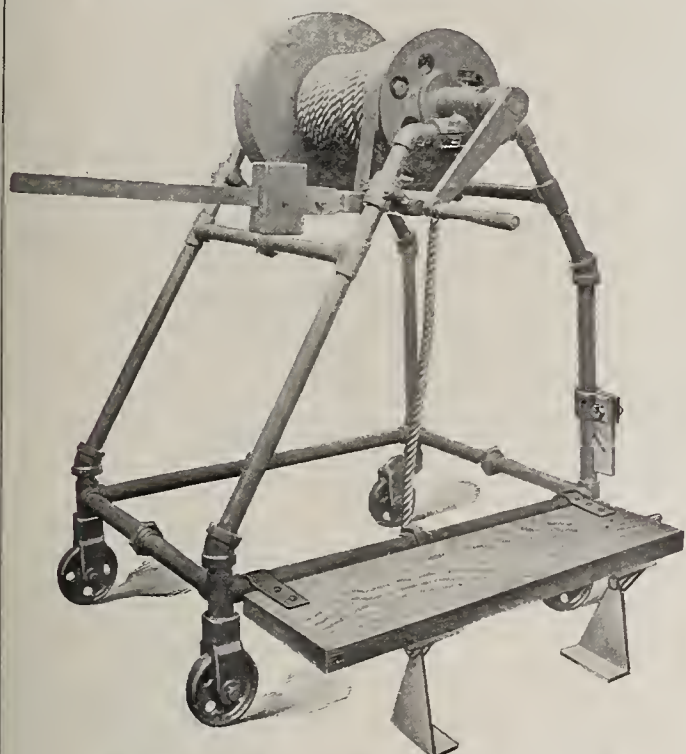
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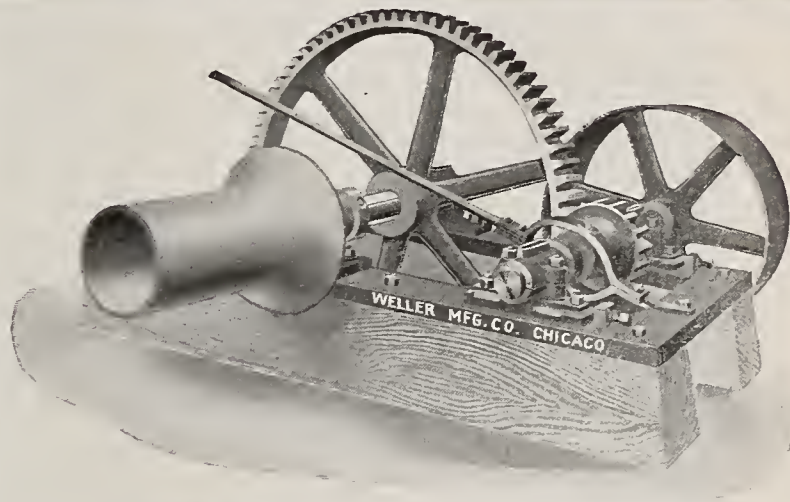
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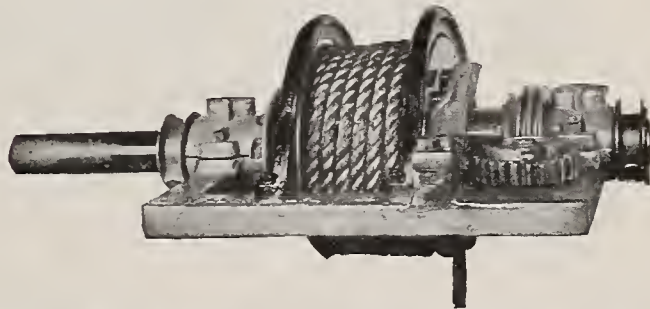
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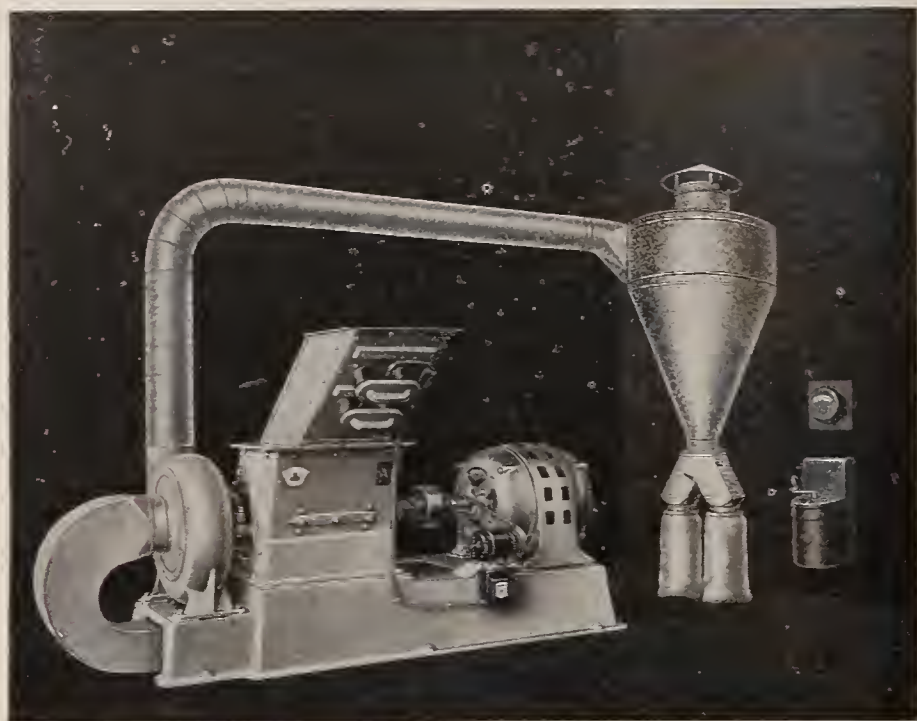
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1. Our heavy steel deflector bar across the top of the hammers make this mill absolutely safe. It has never and cannot, "explode" and injure workmen. It has never caused a fire.

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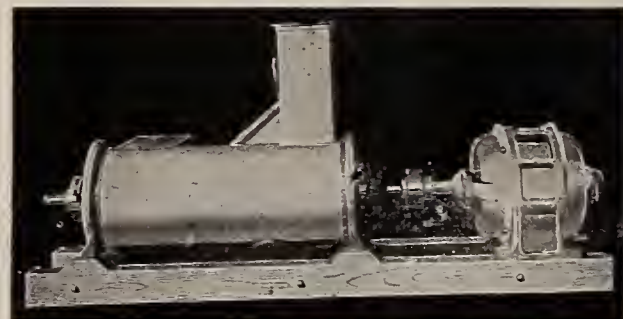
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The Simple Agitator of the Miracle Sweet Feed System

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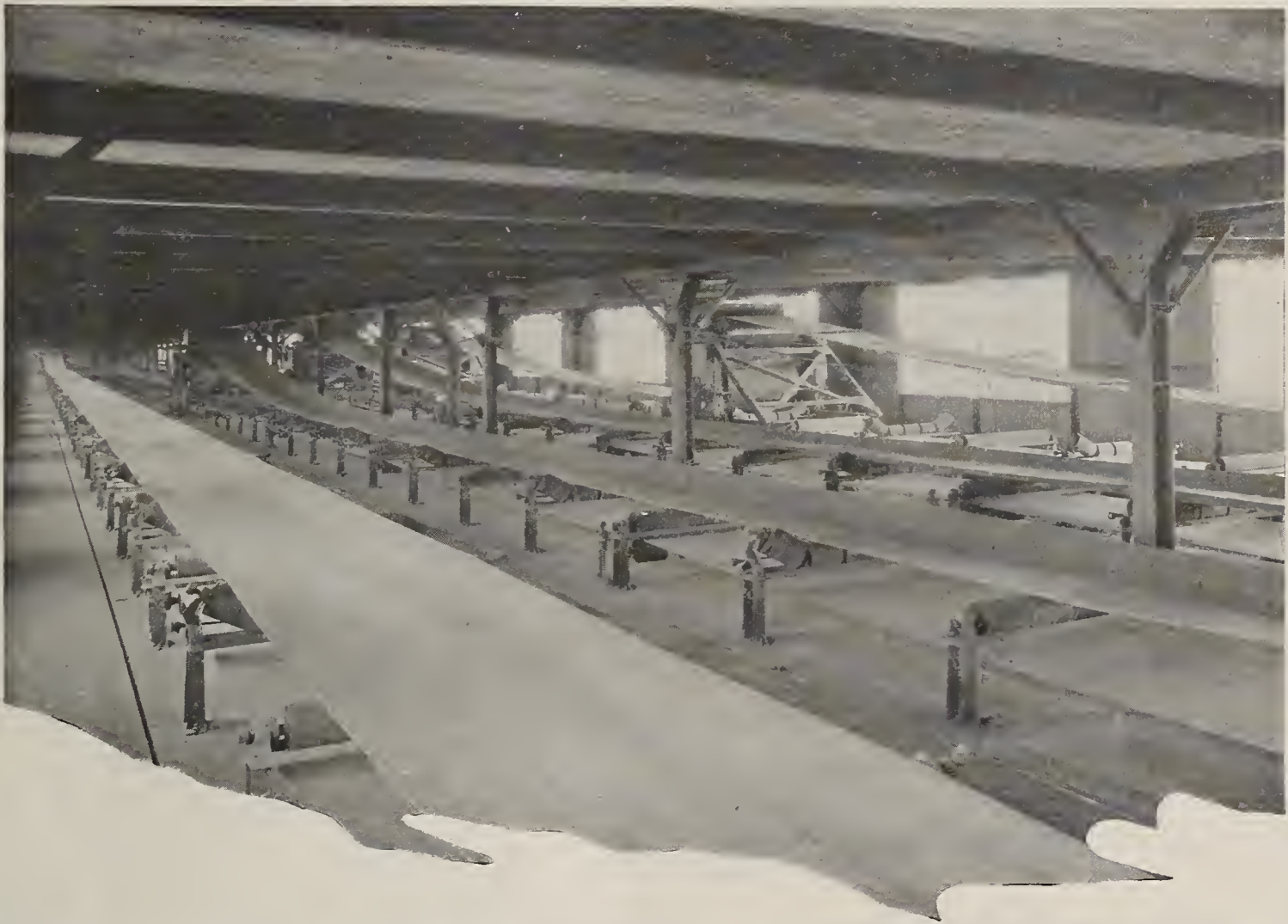
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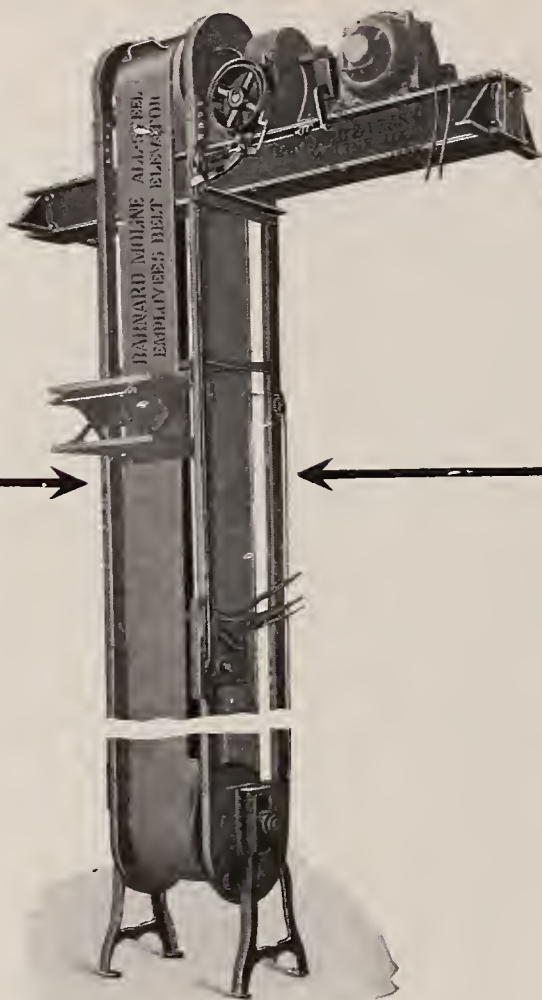
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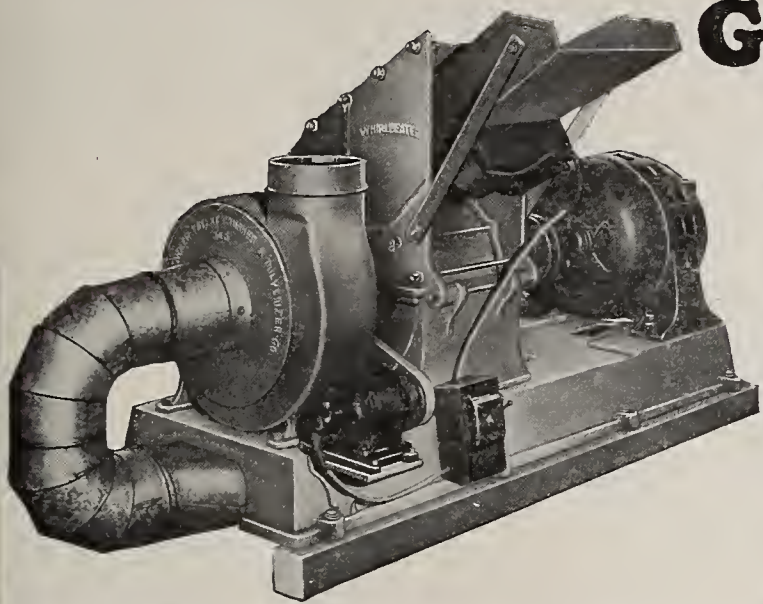
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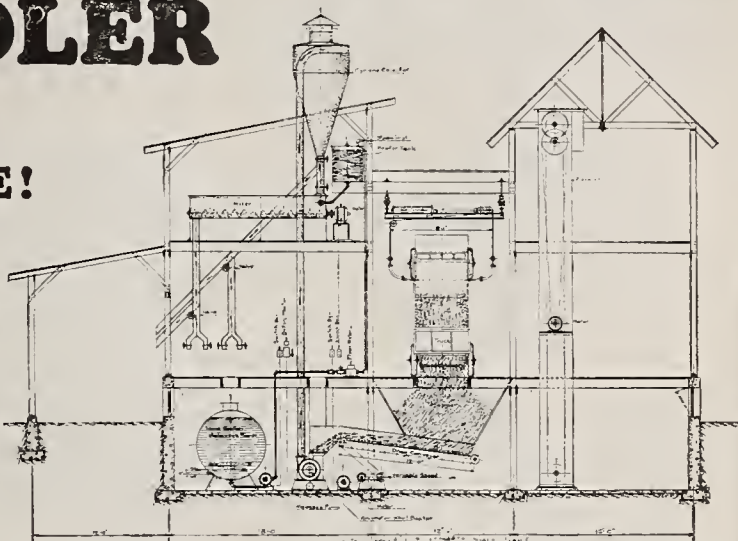
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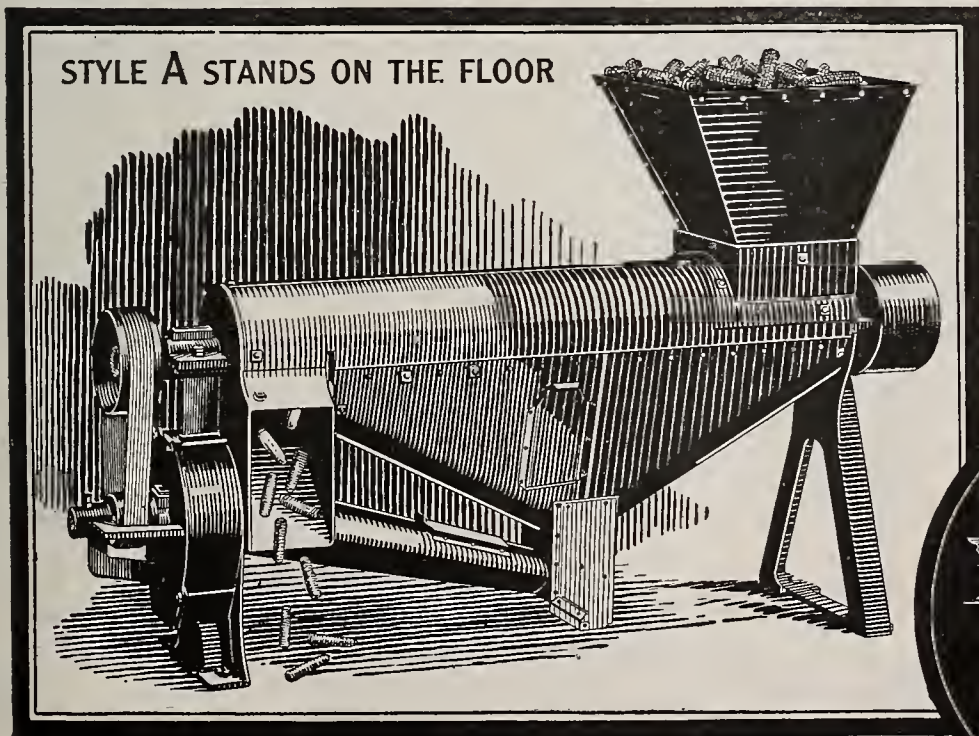
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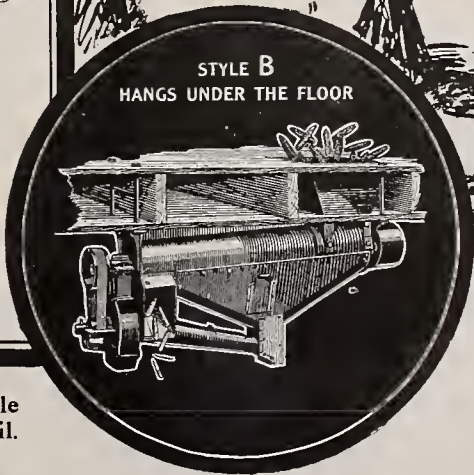
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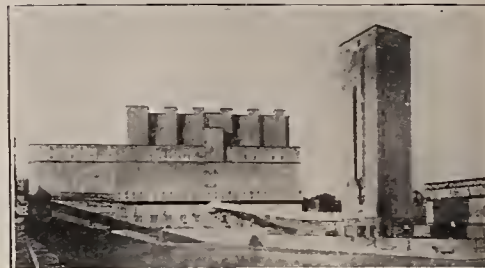
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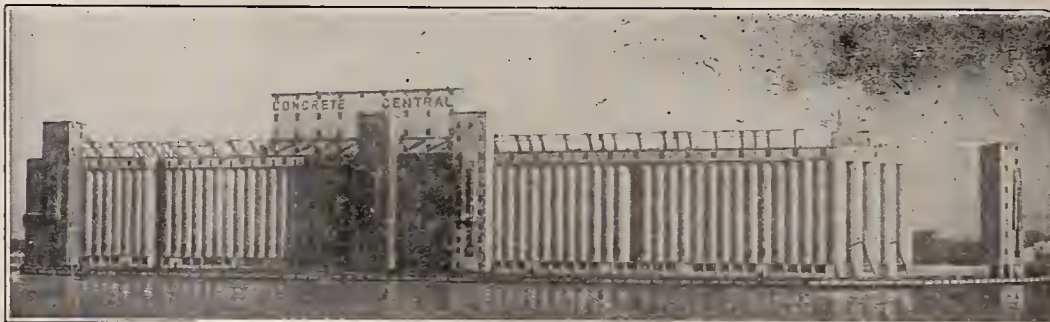
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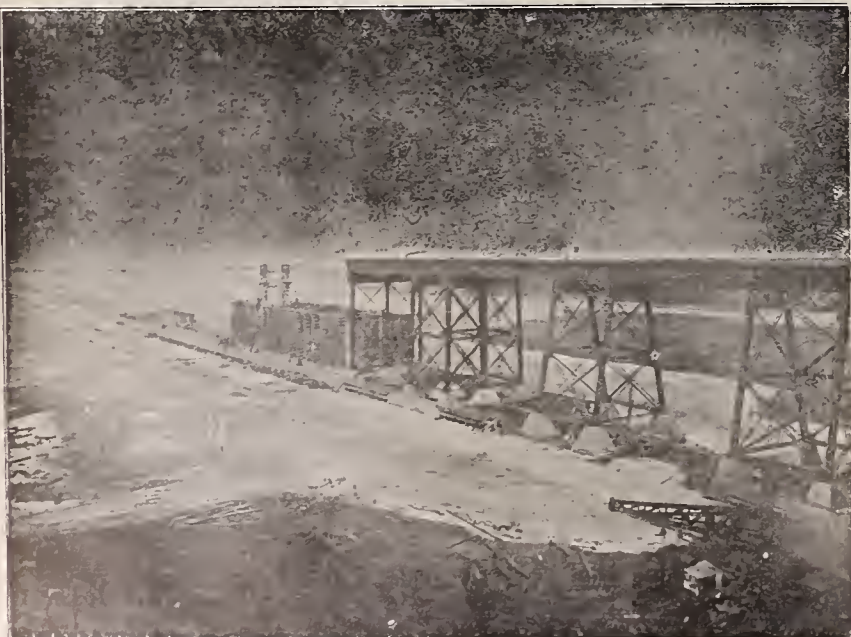
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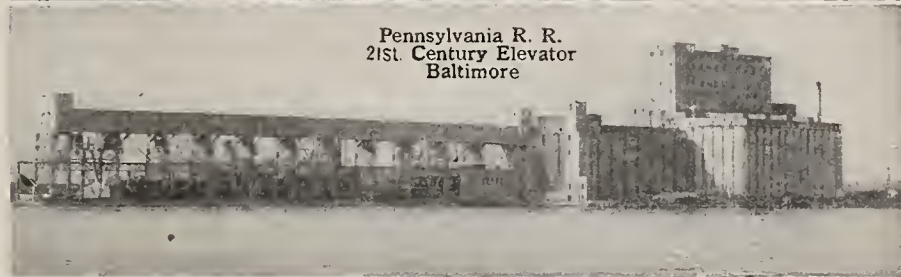
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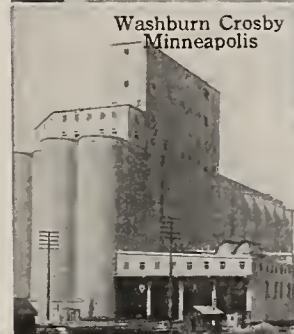
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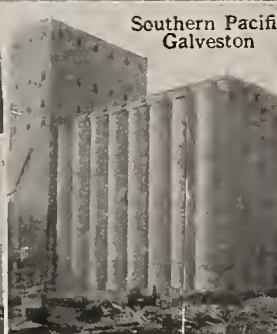
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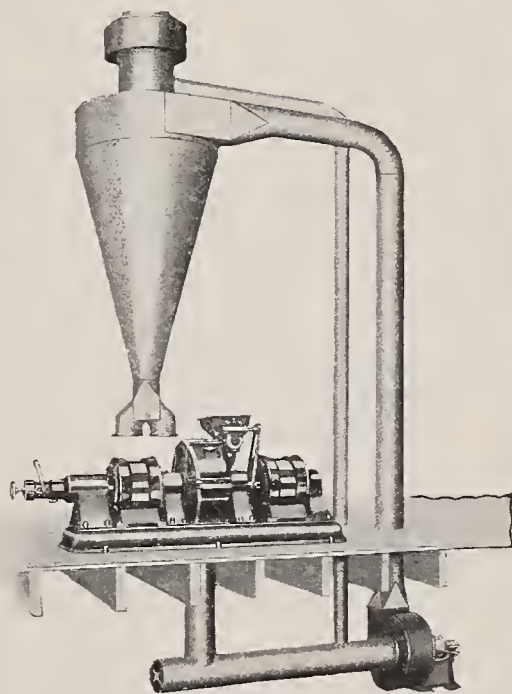
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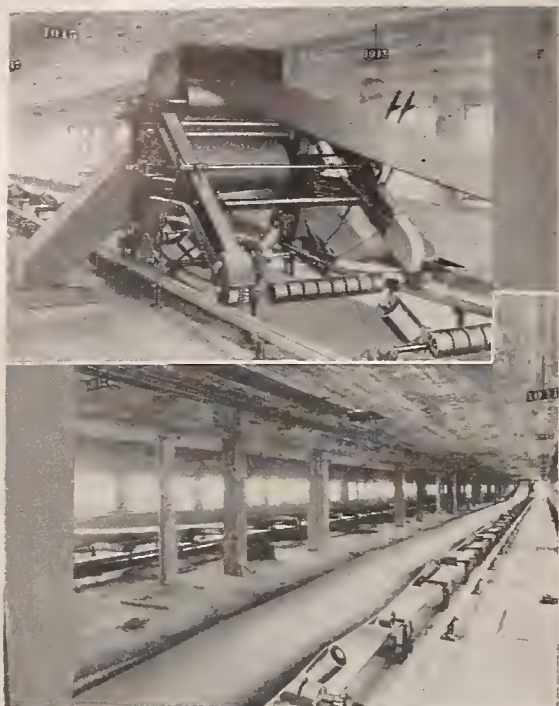
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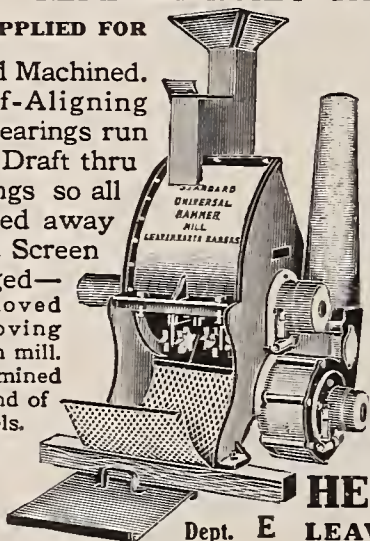


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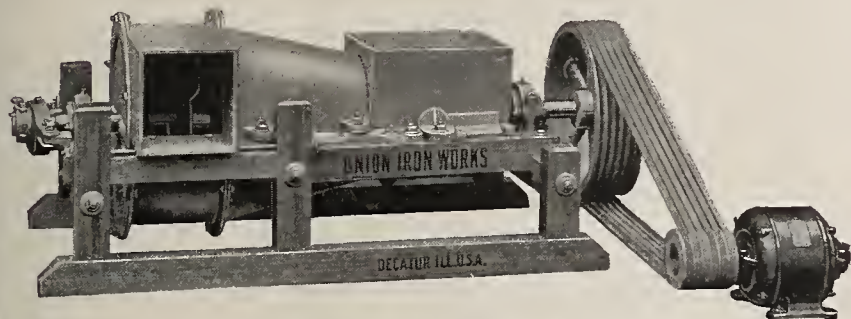
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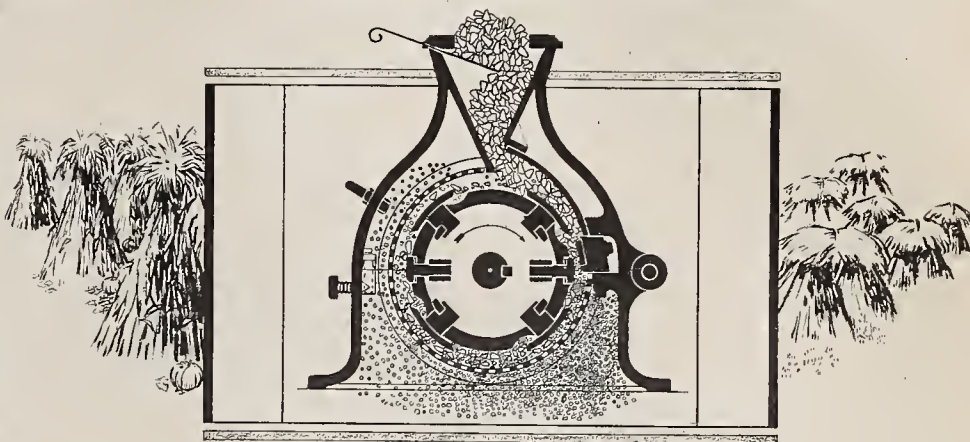
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NO. 6

Minneapolis Elevator Adds Half Million Bushels

Remodeling of Work House and Building of Additional Storage Tanks Improves the Facilities of the Cereal Grading Company

EVER since the inception of the village of St. Anthony, which later developed into the prosperous municipality which was incorporated as Minneapolis, the region around the Twin Cities has been an important center in Middle West activities. Not only did this section get an early start in the milling industry, but it was a natural concentration point for wheat which has been grown in abundance in the surrounding country. The water power afforded by the falls was, of course, a decidedly important contributory factor in the industrial development; but the primary stimulant and resource was that which agriculture provided—plenty of wheat of excellent milling quality. With the years, the available supply of grain has naturally increased as the farming in the region increased, and transportation widened the area for available grain.

The combination of virgin wheat fields, with favorable rates to the East, along with the easily available wheat supply assured the growing community of the means of rapid expansion, with the result that enterprising individuals lent their support to commercial expansion. The process was, of course, gradual development. Elevators were essential, and the necessary houses for handling the grain constructed in due course. The years that have intervened have witnessed the construction of many elevators, and the program of expansion is still progressing as additions are required from time to time. Modern elevators differ from the older ones, benefiting by the improvements in the engineering field and the advance in mechanical methods; but the basic requirement for terminal houses remains a constant factor, only varying as to the volume which the houses are required to handle.

The story of how, a little over a century ago (in 1823), the colonel in charge of Fort Snelling, at the junction of the Mississippi and Minnesota Rivers, constructed a small mill to grind wheat into flour for the soldiers' use is an old one; but it was then that the necessity for storage at Minneapolis first became a fact. It is true, of course, that the requirements today are far different and far greater than ever could have been imagined by even the most sanguine at that remote date, but it is equally true that the development in a trifle more than a century has been remarkable. The vicinity of the Twin Cities grew to be the most important milling

center of the world, and accordingly it became the point at which more wheat was needed than any other single place. Elevators multiplied and elevators built additions as business required them, until today the city of Minneapolis has a tremendous storage available. Among the companies actively engaged in the elevator business today—and among those which have recently had to erect additional units—is the Cereal Grading Company.

The company has just completed the remodeling of its working house and the building of additional storage capacity consisting of concrete tanks of a total capacity of 520,000 bushels. The company has increased the height of the old working house 17

feet, thereby lengthening the loading and unloading of the bins. The working house now contains 40 bins of a capacity of from about 1,800 bushels each to 3,500 bushels each. The old concrete storage had a capacity of 375,000 bushels. This, with the new storage of 520,000 bushels, and the working house capacity, makes the capacity of the plant very close to 1,000,000 bushels.

It is equipped with one large Monitor Separator, oats clipper, and a battery of disc oats separators. The power is electric, there being eight motors of from 10 horsepower to 100 horsepower. The plant is served by the M. & St. L. Railway on one side and the C. M. & St. P. Railway on the other. It is equipped with Fairbanks 150-ton Track Scales on each side of the elevator and the installation of the scale is the very best, much better than the state law requires. The concrete storage now consists of 27 tanks of from 5,000 bushels' capacity to 73,000 bushels' capacity. Altogether, it is now one of the most complete and up-to-date elevators in Minneapolis.

Cereal Grading Company was organized in 1911 by eight or nine men of Minneapolis, only one of whom was connected with the grain trade. The company was organized for the purpose of exploiting a new device for cleaning grain, known as a "Gravity Separation Table". It had been invented in Texas for the purpose of separating refractory cress by specific gravity, and the incorporators of Cereal Grading Company thought it would be an excellent thing for the separation of grain and grading same according to weights. Hence the corporate name of "Cereal Grading Company."

The experimenting with this gravity cleaning machine demonstrated that while it would be a fine thing for grading grains for seeding purposes and things of that kind, it would probably not be a success commercially. Careful experiment and successive tests under competent supervision were the means of definitely determining this fact.

This company in 1911 bought the Layhart Elevator, which at that time consisted of a wooden elevator of about 40,000 bushels' capacity and concrete storage tanks of 110,000 bushels' capacity. It was bought mostly on credit and subject to a mortgage, the capital stock of the original company being only \$15,000.

Success, however, rewarded the new venture at once.

In 1913 the present president, W. T. Fraser, became vice-president and manager of Cereal Grading Company, and thenceforth did a general grain and elevator business with the plant. In 1915, the capital stock of the company was increased to \$50,000, W. H. Wheeler of Minneapolis and W. T. Fraser having a controlling holding of the stock, and in that year concrete storage to the capacity of 275,000 bushels was added to the plant. In 1919 the capital stock was increased to \$100,000 and the original incorporators, who still owned part of the stock, disposed of their stock at a price of \$135 for stock of a par value of \$100. At that time W. T. Fraser of Minneapolis, who had had the entire management of the business from 1913, became president and treasurer, and A. Cohn of Portland, Ore., vice-president.

The present officers of the company are: W. T. Fraser, president and treasurer; N. A. Roberts, Portland, Ore., vice-president; Donald E. Fraser, Minneapolis, secretary. Donald Fraser is the son



ELEVATOR OF THE CEREAL GRADING COMPANY, MINNEAPOLIS, MINN.

of the president, and he and his father have the entire management of the business.

The company does a general grain and elevator business, buying, storing, cleaning and distributing all kinds of grain and seeds, the larger part of the business being the handling of wheat and rye, of which latter grain the president, Mr. Fraser, has made a specialty for nearly 40 years.

GRAIN INSPECTION UNDER COMMITTEE MICROSCOPE

Methods of grain inspection at interior and terminal markets are to be studied by a committee recently appointed by the Grain Dealers National Association. Roy H. Monier, chief of the Missouri State Grain Inspection Department, is chairman of the committee. With him will be the chief grain inspectors of the Omaha and Philadelphia exchanges. This committee will work together with the committee recently appointed by the Department of Agriculture which is comprised of representatives from 19 organizations in the Southwest.

When the committee has completed its work, it will make recommendations to the Department of Agriculture for the elimination of confusion in the interpretation and application of the Grain Standards Act. Particular attention will be paid to the question of the extent to which damaged grain affects flour quality.

DEAD—BUT TRYING TO SPEAK

By M. L. HAYWARD

"I'll be gone for a couple'a weeks on a business trip. Keep the store going till I get back," the owner and majority stockholder of the Lela Grain Company orders.

"Sure," the foreman tells him.

"And don't hire any new men till I get back."

"Sure."

Suppose, however, that the majority stockholder is going on the journey from which no traveler or stockholder returns, and makes a will directing that after his departure the grain corporation shall be carried on along certain lines, and that his stock be voted in a certain way.

Is such a will legal?

This exact point came up in a Michigan case, reported in 177 Northwestern Reporter, Page 222, where the evidence showed that Samuel F. Dobbin held over 1,000 of the 1,500 shares of a Michigan company, and inserted a clause in his will that his controlling stock should be rated so as to keep his sons on the Board of Directors.

When, after Dobbins' death, it was proposed to double the capital stock of the company, which required a two-thirds vote, the executors considered that they were bound by the terms of the will, and the point came before the Michigan courts, and the Supreme Court of that state ruled that the attempt of the will to create a voting trust was contrary to public policy and void.

"The paragraph of the will, wherein the testator attempts to create or direct a testamentary voting trust for a fixed period of irrevocability, and to exclude for a fixed period his representatives from the exercise of their personal judgment as to the management of the affairs of the corporation, and to perpetuate certain persons in office and control of the company without regard to the rights of minority stockholders, is contrary to public policy and said," said the court, in holding that there was nothing in the will which prevented the trustees from co-operating in the plan of increasing the capital stock of the company, or to make a sale thereof in accordance with any lawful plan.

In New York, however, the courts have arrived at the opposite conclusion.

"I find no force in the contention that the trustees as holders of the stock, cannot be controlled in their manner of voting. The power to vote stock, incidental to ownership of the stock itself, may not be taken from the holder by force, but he may certainly qualify his ownership by his own consent that another may vote for him, as in the familiar instance of a vote by proxy, or may accept

the ownership with a condition which involves that consent, as here. These trustees become possessed of the stock, not as their own asset, but solely by virtue of the will and of the conditions which the will imposed," says the New York court in a case found in 94 N. E. 1092.

SIDELINES HELP MICHIGAN ELEVATOR

By C. HYDE

In the town of Findley, Mich., on the Michigan Central and also the New York Central Railroads, is a thriving business which is conducted by its owner, Roy G. Stuart, who lives in Burr Oak, about seven miles east of Findley. He has owned the business for about two years, and before that it was conducted by his father and himself, the concern then being known as Stuart & Son.

The elevator itself has been in active service for about 40 years and is as busy as ever. It is a five-story frame building, including basement, as will be observed by glancing at the illustration below. The receiving capacity is 2,500 bushels, and the shipping capacity of the house is 3,500 bushels.

There are two grain cleaners, supplied by the S. Howes Company, Inc., Silver Creek, N. Y. There is also a corn sheller which is rated at 300 bushels per hour, as well as a feed grinder which has a capacity of 2,500 bushels per hour.

For power, there is a gas engine, and one belt conveyor is used, centrally located, 30 feet in length and 20 inches in width. The customary weighing facilities and unloading devices have also been provided, so that equipment is modern and complete for a house of this size.

The grains handled include wheat, rye, oats,



ROY G. STEWART'S ELEVATOR, FINDLEY, MICH.

corn and buckwheat. In the course of a year's business about 40,000 bushels of grain are handled. In addition to grain, Mr. Stuart does an extensive business in certain sidelines. These include fencing, coal, twine and farm implements. He also has an oil station and sells some supplies for automobile owners. With the aid of the sidelines, Mr. Stuart keeps a good business all year round. He is his own repair man and considers the elevator plant worth about \$8,000 at present.

The storage capacity is 8,500 bushels, divided into nine bins, with approximately 1,000 bushels in each bin.

CO-OP PEAK PASSED

The farmers' local elevator movement has passed its peak of rapid expansion and the number of associations remains about constant, reports the Bureau of Agricultural Economics, United States Department of Agriculture. There are now comparatively few surplus grain producing communities which are not served by a farmers' elevator; consequently, the movement has, to some extent at least, reached a point of saturation. The department has 3,526 local farmers' elevator associations on its lists at this time and it is estimated that there are about 4,000 associations operating.

According to reports received by the department the greatest organization activity in the Pacific Coast area occurred in 1909; in the Spring wheat area in 1916; in the Corn Belt in 1919; and in the Winter wheat and Soft wheat areas in 1920. Only a few companies have been organized yearly since 1921. The number of stockholders of farmers' elevators is estimated by the Government economists to be about 450,000 and the number of

patrons as more than 900,000. The estimated amount of paid-up capital stock is about \$60,000,000 and the estimated investment in plant and equipment is \$65,000,000.

The volume of grain handled in 1926-27 is estimated by the investigators as 550,000,000 bushels, with a sales value of about \$500,000,000. However, they say, the volume of grain handled at approximately one-half of these elevators is not sufficiently large to permit of profitable operation if considered in the light of research findings that 100,000 bushels per elevator is a minimum. But they report that many of these associations are now supplementing their incomes by handling sidelines or performing other services. For example, in 1926-27 about 10,000,000 bushels of grain for pooling associations and sidelines worth \$160,000,000 were handled.

CONFERENCE ON FARMERS' PROBLEMS

The Canadian Chamber of Commerce promoted a conference recently at Toronto, Ont., in an effort to co-ordinate agricultural and other business interests in Canada. Interest was displayed in the topics which came up for discussion: Value of reducing production costs, more efficient farm management, better marketing methods, wider markets and reforestation; lines along which more agricultural processing may be carried on in Canada; elimination of economic waste in agriculture; national business survey of agriculture along non-statistical lines; how the farmer and the city man can get an understanding of each other's point of view; establishment of a national agricultural committee of the chamber for the advance of agriculture in a business-like way.

CORN PRICE ENGAGES STATISTICIANS

What fixes the price of corn? This was the subject for an interesting discussion at a recent meeting of the Chicago chapter of the American Statistical Association. Factors governing the prices of corn futures, trends in prices and the relationship between crop estimates and prices were all considered. R. W. Longstreet said that one factor—a slightly larger corn crop—indicates a better spread from December to May than last year; and two factors—less hogs to be marketed this winter than last and the fact that farmers are marketing them much earlier—indicate less of a spread than last year.

Market operators and public discard crop estimates and known world demand figures when market movements are in progress, said Dr. G. Duvel.

In his paper on "Long Time Trend," L. G. Norton of the University of Illinois said: "Unless last year's crop was estimated considerably too high, the crop brought a higher price than crops of the same size have returned in the years since 1920, and if the estimate which the market is now putting on corn prices for this year proves to be correct, the returns will be larger than those from a crop of similar size would have been from 1920 to 1926. But if present prices are maintained it would indicate that corn prices are on a definitely higher level than they were from 1921 to 1926."

Nat C. Murray, statistician of Clement Curtis & Co., concluded: "The effect of the volume of corn production in 1928 will be greater next April than at the present time. The effect of the short crop of 1927 and small carry-over on November 1, 1928, will diminish as we approach next spring. In other words, the effect of high price factors will become less and less, and the effect of lower price factors will become more and more, with the result that prices will be relatively lower next spring than at the present time."

THE area sown to wheat this fall in Canada represents a decrease of 82,000 acres, or 8 per cent.

Difficulties Encountered in Marketing Canadian Pool Wheat

Pool Sales Chief Explains the Situation Which He Thinks Was Met Successfully

THE difficulties encountered in marketing a large proportion of Canada's wheat crop last year, are revealed by George McIvor, general sales manager for the Canadian wheat pool, in a lengthy report now released to pool members. Why payments for pool wheat were not larger than those recorded, or, as Mr. McIvor might put it, why they were not any less—is evidently in the back of his mind as he reports, in part, as follows:

The crop of 1927 was of poor quality compared to other years. Reference has been made to the tough and damp condition of a large portion of the crop; this, combined with low protein content, had the effect, in many foreign markets, of causing dissatisfaction with our wheats, and at times the discontinuance of the premium ordinarily paid for our wheats over that of the wheats of other exporting countries. This premium was obtained, however, during the bulk of the marketing season.

A further difficulty which arose was the fact that almost all the importing countries of the world raised large crops but in most countries poor quality crops. You can readily see that this added to our marketing difficulties, for instead of offering the world a high class wheat we are offering them something which they already had in quantity themselves.

The selling agency was required to again mar-



A. J. McPHAIL, POOL PRESIDENT

ket a large quantity of tough and damp wheats. As far as the western division was concerned it was necessary to dry practically all of our tough wheats, owing to the danger of shipping tough wheats through the Canal Zone. Beyond this, however, very little of our tough wheat reached the driers, most of it being disposed of to mills at satisfactory discounts under the straight grades.

A development which is bound to influence the future movement of pool wheat and which has already gained in momentum in recent years has been the movement of wheat from the Pacific Ports of Vancouver and Prince Rupert. Pool organization has been active in this development. The shipment of wheat through Vancouver has had our attention since the organization of the Alberta Pool, and this organization is directly responsible for the movement through Prince Rupert, having leased the Government elevator at Prince Rupert and operated the same for the seasons 1926 and 1927, as well as the season just passed. During the season 1927-28 80,000,000 bushels of wheat were shipped to the Orient and Europe through the Port of Vancouver, and over 8,000,000

bushels through Prince Rupert. Of these quantities the central selling agency was responsible for the movement of 47,378,000.* Lack of uniformity of ocean rates, which was formerly the great difficulty of the western route has been removed. During the past season we have witnessed stable ocean rates on the Pacific and the removal of the obstacle set up by lack of uniformity in rates should be a strong factor in the future development of the western movement.

Another great difficulty that has been removed was the lack of facilities at Vancouver. In 1923, which was the previous large movement through the port of Vancouver, when some 54,000,000 bushels were shipped, only one elevator, with a capacity of 1,250,000 bushels, was available. This year Vancouver will have a total elevator capacity of over 10,000,000 bushels, of which the Alberta pool controls over 4,000,000, including the new elevator erected this year, which is the largest and most up to date elevator on the Pacific Coast. The result of the control of facilities, both at Vancouver and Prince Rupert, places the Alberta pool in an enviable position and enables the selling agency to take the fullest advantage of the western route. You can readily realize the importance of this route to Alberta, in view of the fact that practically every shipping point in the Province of Alberta obtains a cheaper rail haul to Vancouver and Prince Rupert than to the head of the lakes. During this past season we loaded 270 boats with grain at Vancouver, 48 of which were full cargoes and 222 partial shipments, and 27 full cargoes at Prince Rupert. We feel safe in predicting that eventually all of our Alberta wheat will move through Vancouver and Prince Rupert, which are the logical ocean ports for the Province of Alberta and western Saskatchewan.

KEEPS CLEAR OF GRAIN EXCHANGE

During the past season a grain future trading market has been organized at Vancouver, also a shippers' clearance association. We have found that our business through this port has developed to such an extent that it has not been necessary to become members of either organization. Although the season just passed was one of great congestion, we were able to load all of our boats without difficulty and fill all of our contracts in a regular manner.

We are continuing to develop the Oriental market and during this past season sold over 80 per cent of the total Canadian wheat consumed in China and Japan. The importance of fostering this market cannot be overestimated.

POOL EXPORTS FALL OFF

This past season we have had a reduction in our direct export business from that of last season. This was not brought about through any change of policy or lack of effort to develop this market, but is entirely on account of the satisfactory domestic markets prevailing on this side during the months of March, April and May. During this period markets on this side were forced out of line with the world price for wheat, which was the result of a speculative condition caused by reported short American winter wheat crop and unfavorable conditions in the spring wheat area of the United States. During this period we were confronted with the choice of selling at a discount for export or selling at a higher price locally.

A ONE-PRICE POLICY

The central selling agency has rigidly followed the policy laid down by the pool directors of *one price to all buyers*. All buyers obtain the same price on the same day, with, of course, the difference in cost of shipping considered. This policy has resulted in a continuation of pleasant rela-

*About half the total volume.

tionships with our various buyers and agencies. We are pleased to report that as a result of the English and Scottish Co-operative representatives' visit to our side that we are now enjoying the best of business relations with these organizations.

The pool organization has not looked with favor upon the consigning of wheat unsold to the importing countries, and we have practically ceased sending forward wheat in an unsold condition, except from the Pacific Coast, where it is necessary to ship forward some small quantities on account of the fact that we are required to obtain our freight several months prior to date of loading. However, we have practically eliminated consigned wheat, even from the Pacific Coast, and we believe that this has had a satisfactory effect on general market conditions.

Our experience with consigning wheat to overseas markets has not been a satisfactory one. We



E. B. RAMSAY, MANAGER AND SECRETARY

find that in most cases where wheat goes forward "unsold" we are required to sell it at buyers' price. In addition to this, although the quantities of consigned wheat are necessarily small, the general effect of selling consigned wheat is detrimental insofar as the general world's price is concerned. We therefore feel that in the elimination of consigned wheat we have obtained the very fullest control over our product on this side of the water.

GOVERNMENT REPORTS ON LARGE-SCALE POOLS

Efforts of farmers to carry their grain-marketing activities beyond the independent local elevator stage, a December report from Washington says, have been directed mainly along three lines. One of these has been in the direction of linking local co-operative elevators for the purpose of effecting economy and increasing stability. The second line of centralized effort is represented in the organization of co-operative grain commission agencies to sell grain on terminal markets. At least eight such associations, the report says, have been organized within the past 15 years, and the volume of business handled by them in 1927-28 was only 36,000,000 bushels. Farmers' elevators to the number of 525 own stock in these commission companies and another 628 contributed their business during 1927-28.

It is estimated these associations served about 64,000 farmers during the crop year 1927-28. Surplus earnings are returned to farmers through local elevator associations in the form of patronage and stock dividends.

State-wide wheat marketing associations, commonly known as wheat pools, according to the report, represent the third line of endeavor in large-scale co-operative grain marketing. They were first formed following the world war, and as originally organized, they operated on contracts with their members, usually for five years. The eight associa-

tions of this type now operating are working on their second series of contracts, most of them modified to provide withdrawal periods.

About 72,000 farmers in about 10 states hold membership in the wheat pools, which advance money to the growers and endeavor to regulate the movement of grain to market. The volume of grain

handled annually has ranged from 12,000,000 to 17,000,000 bushels. As originally organized, none of the wheat pools operated country elevators but rather depended upon existing elevators to handle their grain. However, during the last few years several of the associations have acquired both country and terminal elevators.

Hints for the Elevator Millwright

"Big Bill" Davis Arranges a Double Acting Car-Puller and Discusses the Power Required for Starting Loaded Cars

By JAMES F. HOBART

"MR. DAVIS, is there any profitable way of rigging up a car-puller which will not only move loaded cars both ways, but which will also handle cars on both sides of the puller? That is, there are tracks both east and west of the unloading sink where the car puller must be located and if possible, it is desirable to be able to haul cars in both directions on both lines of tracks. We have a single spur track leading from the main line, but we have a double track, with connecting switches, both to the east and to the west of the unloading point. Stock is usually shipped at the far end of the tracks east of the unloading sink, the spur track leading to the west to the main line. If we can arrange a puller which will handle cars in both directions upon tracks both east and west of the unloading point, then we will have practically eliminated our elevator from being located on a 'dead-end' spur track. Can it be done profitably?"

"The matter looks quite possible, Mr. Morton," replied Bill Davis, "but would it not simplify matters a good deal to set up two car-pullers, one working to the east, the other taking care of the tracks west of the unloading sink? I will outline for you two single car-pullers, two double, and one quadruple puller, and after you have looked them over, you can install the one which seems most suitable to your requirements. The most simple car-puller of all—the single drum, one-rope affair, can be made to do all the work you have outlined in both directions, to the east and to the west, but such a device will necessarily be quite slow in operation and will require a stout sheave of snatchblock permanently erected upon a strong and suitable concrete foundation, and two of these sheaves and foundations will be required beyond the limit of movement of cars, both to the east and to the west. With such a simple device, cars may be hauled in either direction by simply attaching the hauling rope to the car to be pulled, and winding the hauling rope upon its drum.

"When a car is to be moved in the opposite direction on either east or west tracks, it will be necessary to carry a bight of the hauling rope to, and pass it around, one of the snatch blocks. Too much rope handling necessarily consumes a lot of time and its cost, together with the time of the man carrying the rope and the car-puller operator, soon builds up into formidable proportions. But where there is only an occasional car to handle, the simple, inexpensive single-rope, one-drum car-puller will be found more profitable than a more elaborate one which will require more rope, more machinery and more cost of upkeep. But there is a double-drum car-puller, or, more strictly speaking, there are two single pullers, one to handle cars on west tracks, the other puller to take care of east track car movements.

A DOUBLE CAR-PULLER

"Put in two car-pullers," continued Mr. Davis, "and you more than double the capacity, for not only is more than half the rope-carrying dispensed with, but the long shift, from east to west, snatch block is entirely eliminated. There is another thing which should be considered: In case of a breakdown, the puller-plant will not be entirely out of commission, because one of the machines will be serviceable. With two pullers, both east and west tracks can be worked at the same time, something impossible when but a single drum must work both east and west tracks."

"Mr. Davis, isn't there some way of rigging a car-puller with a rope permanently placed around those distant sheaves which you call snatch-blocks? Then, the rope could be driven slowly all the time in one direction while the car-puller was in operation and when a car had to be moved either direction, the attendant could hook a short cable to the car and make the other end of the cable fast to one or the other of the ropes, according to the direction in which the car was to be pulled. Then, when the car had arrived at its destination, or before, the workman would cast the short cable off of the hauling rope and the job would, it seems to me, be accomplished easily and quickly."

DAMAGE TO THE HAULING ROPE

"Yes, Mr. Morton, that might be done, were it not for certain mechanical difficulties attending the hooking on and casting off of the short cable to and from the hauling ropes. To the best of my knowledge, there is no device in existence which would do the hooking on and casting off, without great damage to the hauling rope. It is easy enough to devise ways and means for hooking on the short cable, but the hauling cable will surely be damaged or destroyed by any such mechanism I can think of."

"Mr. Davis, why not use a wire cable instead of a rope? Then a grab hitch could be made anywhere with no danger of cutting or breaking the rope?"

"Take care, Mr. Morton," said "Big Bill," "you would find a wire cable far more troublesome to make a hitch on than a rope. True enough, you could make the hitch easily, but not without severe damage to the cable, which, in spite of its strong, rugged appearance, is one of the most tender things to handle that there is in mechanics. Do you remember the days of cable street cars? Well the engineers fell down completely and permanently when it came to designing and making a grip with which to seize and release the cable at will. It simply couldn't be done. Any possible grip which would hold the cable with force enough to pull a street car would tear or wear the cable into disuse in a very short time. A wire cable is just as tender as one of the many small wires of which the cable is composed.

"Another thing: While a rope will twist up and kink itself most awfully, it can be unkinked again easily and if not broken where the kink occurred, the rope can be put to use again at once. Not so with wire cable, which will kink while you are holding it straight, and once kinked, it is seldom that the kink can be worked out. Even if the kink could be straightened, a break would soon occur where the cable was kinked. While a broken cable can be spliced, it is a tedious, laborious operation, rather costly, and requiring a high degree of skill on the part of the man who makes the splice. No, Mr. Morton, better stick to rope in your car-puller, whatever type you decide upon.

A DOUBLE-BARRELLED PULLER-DRUM

"Mr. Morton, if you are willing to invest a little more money and put in a double-drum winder, then it is possible to arrange a car-puller which will dispense altogether with all the rope-carrying to and from snatch-blocks, and the device will always be ready instantly to pull a car either east or west. This puller can be made to cover both the east and west trackage, with the same rope and pair of winding drums, but, it is recommended that by all means

such a puller be arranged for only one of the two sections to be covered by pullers."

"That listens good, Mr. Davis. How is it made and where can the parts be obtained?"

"It isn't made yet, Mr. Morton. This puller is a new device which I have schemed out expressly for your requirements—and for those who require a car-puller to work under similar conditions. I advise you to get in touch immediately with several neighboring junk yards, also with several manufacturers of hoisting machinery and locate an inexpensive double-drum, geared hoist similar to those used in steam and electric hoisting machines. Perhaps a good winding drum outfit may be located in a junk yard which has been scrapped with a played out steam boiler. The shafts should be geared to a central pinion shaft, but the drums should be loose upon their respective geared shafts and connected to such shafts by means of a locking device in each shaft, the device being controlled by a mechanism in the center of each shaft. A light friction brake should be attached to each drum to prevent its over-running and unwinding rope after the hauling rope motion has stopped.

"Wind upon each of the drums rope enough to reach—with a little to spare—to and around the distant snatch-block sheave at the far end of the hauling space. Attach the near end of each rope to one of the winding drums and fasten a rugged hook to the far end of each of the two ropes, one of which has been passed around the snatch-block. When power connection has been arranged for the winding drums, it is evident that the operator, by properly working the friction levers of the two winding drums, can at will cause the hook to travel toward or from the snatch-block to the winding drums. By making a hitch with a short rope between a car and the hook on the pulling rope, a car may be hauled in either direction at will, and if the hook chances to be elsewhere than where wanted, the puller-operator can send the hook where it is needed, without anybody spending one minute in carrying ropes or juggling snatch-blocks."

"That sounds good, Mr. Davis, but if such a device is rigged up to serve the west trackage, how about the east tracks?"

"Do just as you did with the single drum puller, Mr. Morton. Put in two complete installations, separate save for the power which drives them. Both the winding outfits may be driven from the same shaft, electric motor or internal combustion engine. If you wish, you can thread a single rope around both snatch-blocks and make a single double hoist operate both east and west tracks, but such an arrangement would not prove very desirable. There would be two puller-hooks, but only one of them could be used to advantage probably at the same time, because the two hooks must travel together in the same direction and cannot be used independently as when double or duplicate pullers are available. So put in two complete double drum pullers and their operation will be elastic and far more profitable than an intricate 'cat's cradle' of pulling ropes."

ANCHORING THE SNATCH-BLOCKS

"Mr. Davis, how are the distant snatch-blocks to be held against the pull of the rope? It seems to me it will require considerable concrete to hold them against the pull of the rope."

"Maybe not as much concrete will be required as you may think," said Big Bill. "Bye and bye we will find out how much rope-pull will be required to handle loaded cars, and then we can calculate the size of snatch-block foundations required."

"Mr. Davis, how are we going to find out how much power will be required to operate the car-puller, and how big a rope will be necessary to do the work without breaking?"

FIGURING CAR-PULLING POWER

"How large a rope will be required, and how can the required pulling power be calculated? I reckon we ought to know, right now, all these things before we go further with the car-puller?"

"Now," said Big Bill Davis, "how many pounds pull is required to move each ton of car weight?"

In some of the engineers' hand books, it is stated that when roadbed and rolling stock are in the best possible condition, a train has been kept moving by a reactive force of 15 pounds per ton of train-weight. But nothing as low as this is to be expected on the rough rails of an elevator spur track, and, three times that pull per ton should be allowed. In addition, there is the starting of the loaded car from rest, on perhaps a frozen track, and 100 pounds per ton is little enough to allow for the 'breaking-out' of a car. So, Mr. Morton, let's see what equipment will be required to pull 100 pounds per ton on a 23-ton car, or a total pull of 2,300 pounds, in case of necessity. Now, it will require something of a rope to stand that stress, and in selecting a rope, put it straight up to the rope-maker and let him specify what size of rope is good for an occasional pull of 2,300 pounds.

BELT-POWER FOR CAR-PULLERS

"Now, Mr. Morton, for the driving power required: In starting a car, speed has nothing whatever to do with the matter—there must be 2,300 pounds dead pull by the rope—or less in many instances. For example, assume that the winding drum is $8\frac{1}{2}$ inches in diameter and that a rope $1\frac{1}{2}$ inches thick is used, making the effective drum diameter 10 inches. That is, a $1\frac{1}{2}$ -inch rope, wound on an $8\frac{1}{2}$ -inch drum will take up about $3\frac{1}{7}$ by 10 inches of rope or about $31\frac{1}{2}$ inches, say, about 29,283 feet of rope in each coil on the drum. Now, if it be desired to pull the rope fast enough to move a car three miles an hour, or one mile of 5,280 feet in 20 minutes, then the drum must be driven at a speed of about 100 revolutions per minute."

BELT POWER REQUIRED FOR PULLER

"Mr. Davis, isn't it going to take a whole lot of belt power to drive this car-puller when it exerts a pull of 2,300 pounds?"

"It certainly will. Up to this point, belt speed or velocity has not entered the problem—just a dead pull of 2,300 pounds on the rope. But now, as soon as it becomes necessary to exert that pull at a speed or velocity of 5,280 feet in 20 minutes, or 264 feet per minute, then belt velocity runs up $264 \times 23,000$ divided by 33,000, will be the horsepower required to drive this car-puller when it is doing its maximum work of breaking out a frozen car.

"You can figure the horsepower, Mr. Morton, if you want to, but suppose we place a 40-inch pulley on the winding drum and see how wide a belt will be necessary. The winding drum, having a rope diameter of 10 inches, and the drive pulley being 40 inches in diameter, there need be, neglecting friction, a belt pull of one-fourth of 2,300 pounds, or 575 pounds, and allowing a pull of 40 pounds working pull per inch of belt width, there should be a belt about $14\frac{1}{2}$ inches wide. This, as you say, Mr. Morton, is a 'whole lot of belt,' so the 40-inch pulley may be replaced by a spur gear and a smaller pulley placed on its pinion shaft to be driven by a belt having higher velocity and far less belt width."

FARM PRICE INDEX DECLINES

The index of the general level of farm prices declined three points during the period from October 15 to November 15, reports the Bureau of Agricultural Economics, United States Department of Agriculture. At 134 per cent of the pre-war level, the index is three points below November a year ago. Declines in cotton, corn, barley, wheat, rye, potatoes, meat animals, horses, mules, and chickens more than offset advances in oats, hay, apples, cottonseed, dairy and poultry products. The index of the farm prices of grains declined six points from October 15 to November 15 of this year.

The farm price of corn continued to decline from October 15 to November 15, amounting to 13 per cent in the North Central States, 12 per cent in the North Atlantic States, 9 per cent in the South Atlantic States, 6 per cent in the South Central Division, and 5 per cent in the Far West. These farm price declines were accompanied by a marked

increase in market receipts, due to the marketing of the new crop. Receipts at 14 primary markets during the two-week period ending November 17 were more than twice as large as in a corresponding period ending October 20.

The farm price of wheat declined approximately 2 per cent from October 15 to November 15. With the exception of a 2 per cent price increase in the South Atlantic States and no appreciable change in North Atlantic States, the decline in the farm prices of wheat was fairly general for the country as a whole. Declines in the farm price of wheat this season have been accompanied by the accumulation of a large visible wheat supply and small exports.

ILLINOIS ELEVATOR ENLARGES TRADE

Up and down the length of the State of Illinois, which extends over a great part of the north and south line at the middle of the United States, the countryside is peppered with grain elevators which serve the country stations and facilitate the marketing of the farmers' produce. In the present modern scheme of things, these elevators not only furnish an efficient outlet for grain, but they sell to the farmer a great number of indispensable sidelines, not the least of which is feed for the stock

more elevators, with which they must compete and on the north, there is little grain growing territory, most of the farms being given over to dairying, because of their close proximity to the town of Decatur.

The dairy farms, however, have opened a new line of business for the company, that of a retail feed business that is growing to considerable proportions. Of the above mentioned 38,000 bushels of oats purchased last season, 35,000 bushels were ground through the mill that has been installed, and sold to the dairymen. Several cars of corn also were ground and sold, in fact the retail business is now a valuable asset of the company. Many country elevators have found in the retail feed business an almost unbelievably profitable source of income. The overhead to maintain this department is small and returns are large as many an elevator operator has discovered.

Two men are employed the greater part of the time, in addition to the manager, and the overhead is reduced considerable by a combination of the grain and retail business. The nearness of the coal mines does not allow a large trade in that commodity, the average yearly sales being about 35 cars. The sales of commercial feeds have been large, about three carloads of dairy and poultry feeds being retailed each month. In addition to feeds, the company handles wire, steel posts, mo-



PLANT OF THE ELWIN (ILL.) FARMERS ELEVATOR COMPANY

on the farms. As one journeys over the concrete highways, there is a constant changing scene, dotted at frequent intervals with these grain depots, which generally tower above all else in the towns. While the variety in architecture is but little, and all bear a decided leaning toward one of a few recognized types, they do vary greatly in their success, due to differences in management and equipment. One up-to-date country elevator which belongs to this phase of Illinois' prosperity is that of the Elwin Farmers Elevator Company, located at Elwin, Ill., four miles south of Decatur, on Route No. 2.

Under the management of J. A. Markwell, the business has steadily increased and this in spite of two very unfavorable crop seasons that will be long remembered by farmers and elevator men as well. Last year's business enabled the company to pay a 6 per cent dividend at the end of the year, leaving a substantial surplus in the cash fund, besides paying for numerous repairs on and about the plant.

The Elwin Farmers Elevator Company was organized in 1918, under the co-operative law of 1915, with a capital stock of \$20,000. During the last year, a very unfavorable crop season, the elevator handled about 2,500 bushels of wheat, 38,000 bushels of oats and 145,000 bushels of corn. The grain purchasing territory of the elevator is limited, because on the west, south and east, but a few miles away are several towns, with one or

tor oils, greases, binder twine and various articles that the farmers of the community use. The retail business of the elevator last year totaled nearly \$20,000.

Considerable repair work was done on the plant last season, and painting and more repairing is on the program for the present season. A number of cars of cinders were spread on the drives last year, and they are now free of mud, a very satisfactory feature. On account of the increased business last season additional storage space for oats was added. An endeavor is made to keep both oats and shelled corn as well as ground corn and oats on hand at all times for their dairymen customers.

The company consists of about 81 stockholders. The president of the company is O. B. Gilbert. Other officers are J. J. Cloney, vice-president; V. E. Peterson, secretary; F. S. Craycroft, treasurer. The four with M. Siehr, F. S. Kater and I. A. Kniple make up the Board of Directors which directs the affairs of the company.

J. A. Markwell, to whom much of the success of the company is credited, has been with the company a little over two years.

WANT TO KEEP ELEVATORS

Members of the United Grain Growers, Ltd., decided at their recent annual meeting not to sell the line of country elevators to the Alberta Wheat

Pool. Some members of the organization were in favor of selling the elevators, saying that there was too much confusion in the handling of pool and non-pool wheat. Others contended that the company was in as strong a position as the pool. The gross earnings of the company for the past year have been \$3,347,315, interest on bonds mort-

gages and debentures \$193,141, depreciation \$258,273, leaving a net profit subject to Government taxes of \$714,831. The accounts showed that the current assets amounted to \$5,873,102, against current liabilities of \$2,925,134. Capital assets totaled \$9,115,243, less depreciation reserve of \$2,300,000, while the capital liabilities were \$4,563,554.

the rankings for exports and primary receipts are compared with those for total storage stocks and average operating ratios, it is found that an inverse relationship exists for the years 1921 and 1925. In 1921, exports and primary receipts are high, while storage stocks and operating ratios are low. In 1925, exports and primary receipts were low, while storage stocks and operating ratios were high. In 1924 and 1922, a high operating ratio seems to be consistent with high primary receipts and exports, while in 1923, a low operating ratio is consistent with low primary receipts and exports.

The low ratio in 1921 may be accounted for by the fact that grain for export moved rapidly out of these interior markets to seaboard, thus depleting stocks at interior points. The high ratio in 1925 is accounted for by the fact that grain did not move freely for export, and small primary receipts made it seem worth while to the speculator to hold grain in store.

The coincidence of the rankings of operating ratios, total storage stocks, exports, and primary receipts for the years 1924, 1922, and 1923, points to a more even flow of grain from the interior markets to seaboard than was the case in 1921 and 1925.

No positive conclusions with regard to the factors controlling use of space can be arrived at without further study. A high degree of use is found when grain is plentiful and exports fairly large, as in 1924, and again as in 1925 when grain is scarce and exports are low. Much depends upon the rate of flow through the market and the willingness of the speculator to accumulate grain in anticipation of a profit.

Perhaps sufficient notice has not thus far been taken of that other measure of the use of elevator space which may be called space turnover. A rate of space turnover for the several markets is here calculated by dividing the five-year average space at each market into the five-year average of total grain receipts for that market. The following rates are given:

Rate of space turnover ¹ (Five-year average)	Ranking in terms of ratios of five-year average stocks to capacity
1. St. Louis .....19.4	1. Minneapolis .....56
2. Milwaukee .....10.4	2. Chicago .....51
3. Buffalo .....9.5	3. St. Louis .....48
4. Omaha .....6.6	4. Omaha .....44
5. Chicago .....5.7	5. Kansas City .....43
6. Minneapolis .....4.5	6. Duluth .....36
7. Kansas City .....3.9	7. Milwaukee .....36
8. Duluth .....3.1	8. Buffalo .....28

¹ Rate of turnover is computed by dividing the five-year average of space at a market (excluding mill space) into the five-year average of grain receipts.

The ranking of the markets for space turnover is radically different from the ranking for average use of space. Only Omaha keeps the same relative position. St. Louis, Milwaukee and Buffalo improve their rating while the remaining markets shift to lower positions.

Turnover measures the total flow of grain through the market in relation to the amount of elevator capacity. The high rate at St. Louis and Milwaukee results from the small amount of elevator space relative to the amount of grain handled. At Buffalo it is rather due to the rapid transfer of the grain through the market.

Undoubtedly the low turnover rates at Minneapolis and Kansas City reflect the holding of grain at these points for local milling purposes. The very low rate at Duluth is to be explained by the fact of large capacity plus the fact that after

Growth and Distribution of Grain Elevator Storage in the United States

By E. A. DUDDY

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(Continued from Page 292, November issue)

THE period of accumulation of storage stocks is indicated by the difference in time between the high and low ratios. A five-year average lapse of time between high and low ratio shows the following in terms of number of months: Buffalo 4, Chicago 6, Duluth 4, Kansas City 5, Milwaukee 5, Minneapolis 5.4, St. Louis 4, Omaha 5; average of all markets 4.8. The range of lapse of time between high and low ratios for all markets is from two to nine months. Where the lapse of time is great, the average operating ratio of the market tends to be large. St. Louis is a partial exception to this rule.

From an inspection of the operating ratios there is no indication that there is any shortage of terminal elevator capacity at the eight markets considered. Even the ratio of high stocks to storage capacity seems well within bounds. True, the high ratio of 110 for St. Louis in 1923 must be considered abnormal, and the high ratios of Kansas City in 1924 (91), and of Minneapolis in 1924 (92), and 1925 (94), should be noted; but these are exceptional. The marked seasonal fluctuation gives an average use of capacity which must be considered low. For any one market the five-year average does not go above 56 per cent. In one year the average ratio for all markets combined does not go above 49 per cent, while the five-year average ratio for all markets combined is but 43 per cent.

Two further points are of interest: (1) how do the markets rank with respect to average operating efficiency as indicated by the five-year average ratio of stocks of grain to elevator capacity; and (2) what factors are associated with a high or low operating efficiency in the use of elevator capacity at terminal grain markets generally?

A ranking of the markets on the basis of the five-year average use of space in relation to the amount of storage space and the weekly average stock is given:

Ranking in terms of ratios of average stocks to capacity 1921-25	Per cent	Average storage space 1921-25
1. Minneapolis .....58		1. Chicago .....45,518
2. Chicago .....51		2. Minneapolis .....42,501
3. St. Louis .....48		3. Duluth .....37,320
4. Omaha .....44		4. Buffalo .....27,429
5. Kansas City .....43		5. Kansas City .....23,465
6. Duluth-Superior ¹ .....36		6. Omaha .....10,271
7. Milwaukee ¹ .....36		7. Milwaukee .....5,550
8. Buffalo .....28		8. St. Louis .....5,170

¹ Duluth and Milwaukee have the same ratio.

Except in the case of Chicago, Minneapolis, Kansas City and Milwaukee there seems to be no direct relationship between large storage space and a high average use of space. In the case of St.

Louis, Omaha, Duluth and Buffalo, the relationship is rather of the inverse order.

While there is a close positive relationship between amount of storage space and weekly average stocks, efficiency in the use of space is associated directly with size of stocks only in the case of Minneapolis and Chicago. To a slightly less degree the same might be said of the Kansas City and Milwaukee markets.

In an endeavor to account for the change in average use of space from year to year for all markets, with exports, and with primary market receipts by years. A ranking of the years in terms of average ratios and total storage stocks for all markets for each years shows:

Ratio of average stocks for all markets	Per cent	Total of weekly storage stocks for all markets	Per cent stocks of each year are of total
1. 1924.....49		1. 1925.....23.9	
2. 1925.....47		2. 1924.....22.4	
3. 1922.....41		3. 1922.....18.8	
4. 1921.....39		4. 1921.....17.0	
5. 1923.....38		5. 1923.....16.1	

The close correspondence in the ranking shows a direct relation between a high operating ratio and amount of storage stocks from year to year. Changes in the amount of storage stocks seem to be more important in determining the elevator operating ratio than changes in the amount of storage space.

When the years are ranked for amount of exports¹ of wheat and corn, and for primary market receipts,¹ the following order results:

¹ As reported in the Year Books, Department of Agriculture for all markets.

Ranking of years for exports of wheat including flour (000 Bushels)	Ranking of years for amount of primary receipts (000 Bushels)
1. 1921.....359,021	1. 1922.....791,704
2. 1924.....241,454	2. 1921.....776,514
3. 1922.....235,307	3. 1924.....760,726
4. 1923.....175,190	4. 1923.....658,288
5. 1925.....138,784	5. 1925.....569,985

The difference in ranking of the years 1922, 1921, and 1924 for primary receipts is of slight significance because the total of receipts for each

RATIOS OF HIGH, LOW, AND AVERAGE STOCKS OF GRAIN² IN STORAGE TO GRAIN ELEVATOR CAPACITY³ AT CERTAIN MARKETS, 1921-25

	1921						1922						1923						1924						1925						Average 5 Years		
	Date	High	Date	Low	Aver- age		Date	High	Date	Low	Aver- age		Date	High	Date	Low	Aver- age		Date	High	Date	Low	Aver- age		High	Low	Aver- age						
Buffalo	Oct. 8	59	Apr. 16	14	31		June 10	49	Apr. 29	16	33		Oct. 3	35	May 5	8	21		May 31	40	Aug. 16	14	28		Feb. 28	37	Sept. 12	10	25	44	12	28	
Chicago	Oct. 22	71	May 21	35	56		Mar. 18	70	Dec. 2	27	50		Dec. 29	52	July 21	9	39		Oct. 15	84	July 19	28	55		Jan. 24	87	Sept. 12	9	57	73	22	51	
Duluth-Superior	Sept. 24	37	Jan. 22	12	22		Apr. 22	63	Aug. 5	7	29		May 5	68	July 11	11	34		Oct. 8	63	Aug. 23	4	40		Apr. 18	83	Aug. 22	15	55	63	10	36	
Kansas City ...	Oct. 15	74	Jun. 25	17	41		Mar. 4	68	Nov. 25	20	37		Dec. 29	69	July 21	11	36		Oct. 1	91	July 5	25	62		Jan. 3	82	July 25	10	40	75	17	43	
Milwaukee	Oct. 22	58	May 28	9	28		Mar. 25	74	Oct. 14	10	30		Dec. 29	48	July 21	6	27		Oct. 29	81	July 19	13	55		Feb. 14	84	July 18	8	40	70	9	36	
Minneapolis ...	Dec. 31	79	Jun. 4	23	44		Jan. 7	78	Aug. 12	38	56		Dec. 29	70	Aug. 18	33	58		Dec. 27	92	Aug. 23	23	50		Feb. 14	94	Aug. 8	35	71	84	31	58	
St. Louis ¹	Oct. 15	82	May 14	13	51		Mar. 4	73	July 8	18	41		Mar. 3	110 ⁴	July 7	7	49		Sept. 27	84	July 19	18	51		Feb. 7	73	July 18	14	47	84	20	48	
Omaha	Oct. 15	62	May 28	18	39		Mar. 18	74	July 29	28	48		Dec. 29	67	July 21	17	43		Oct. 15	82	July 26	23	52		Dec. 26	64	July 11	8	40	70	19	44	

1. Includes East St. Louis.
2. Wheat, corn, oats, rye, barley.

3. Excludes elevators of millers and converters.

4. Probably to be accounted for by the reporting of stocks not in commercial elevators

navigation closes on the lakes, grain is held over the winter with practically no outward movement. When the old grain moves out in the spring no new grain is available to take its place. Thus the space turnover is small while average use of capacity is slightly higher.

RATE OF SPACE TURNOVER¹ FOR TERMINAL ELEVATORS (EXCLUSIVE OF MILL AND CONVERTER SPACE) AT INTERIOR MARKETS AND LAKE PORTS, AND SEABOARD POINTS; 1918, 1926

Markets	Primary Receipts		Exports		Space (excluding mills)		Space Turnover	
	1918 (000)	1926 (000)	1918 (000)	1926 (000)	1918	1926	1918	1926
Interior markets, Lake Ports and Seaboard	1,019,940 ²	1,025,794 ³	424,919 ⁴	1,240,610 ⁵	248,122,000	270,123,128	6	8.4
Interior markets, inc. Lake Ports.....	1,019,940 ²	1,025,794 ³	.....	.....	216,726,000 ⁷	230,305,000 ⁸	4.7 ⁹	4.4
Seaboard Points.....	.....	.....	436,066 ³	1,240,610 ⁵	44,780,000 ⁷	59,727,000	9.7	20.7

1. Turnover—Space in bushels divided into number of bushels handled through the elevator.
2. Average receipts of all grains at primary markets 1914-1920, Year Book, D. of A. 1920.
3. Average receipts of all grains 1922-1926, Annual Report, Chicago Board of Trade, 1926, p. 126.
4. 1921 Year Book, Department of Agriculture.
5. Three-year average exports 1918-1920, Year Book, D. of A., 1920.
6. Five-year average exports 1922-1926, Annual Report, Chicago Board of Trade, 1926, p. 126.
7. Space for 1920 as given in Report of Fed. Trade Com., Vol. III, p. 288.
8. As of 1920.
9. Two-thirds of total space for these markets as given in earlier table.

An attempt is made in the table to indicate the relative use of capacity over a period for the interior markets and lake ports as a group, compared with the coast ports. Turnover for the interior markets and lake ports is computed on the basis of a five-year average of receipts at primary markets of the combined grains. Since mill elevator capacity is excluded, the rate of turnover for these interior markets and lake ports must be considered a maximum, since a good share of these receipts moves directly into mill elevators. By including mill elevator capacity in the space for

all markets (including seaboard), for 1926, the rate is lowered from 8.4 to 5.5. For interior markets for 1920, if mill space be added in a ratio of one-fifth mill space to total space, the turnover rate for interior markets and lake ports for 1918 is reduced from 4.7 to 3.2; the rate for 1926 is reduced from

4.4 to 2.9.

For all terminal elevators, excluding mill properties, the rate of turnover shows a gain in 1926 over 1918 of 2.4. This gain is open to question in the light of the movement of grain direct to mill elevators. Turnover at interior markets appears to be stationary. An unmistakable improvement in turnover takes place at the coast ports. This is due to a sharp increase in exports in the period 1922-26 over the previous period 1918-1920. The rate for the coast ports is uniformly greater in both periods than the rate for all markets, or for interior markets and lake ports.

TURNOVER IN COUNTRY ELEVATORS

When a ratio of country elevator space in 1918 to grain marketed by farmers¹ 1916-21 is taken, the result is a space turnover of 3.1. This compares with a turnover of 9.7 for seaboard elevators in 1918, and a turnover of 4.7 for interior markets and lake ports in 1920.

1. Based on shipments of grain out of country where grown as reported in Year Books of the Department of Agriculture.

Trading in Futures

Wherein Is Pointed Out Some Advantages; and a Suggestion for an Economic Examination of the Futures Market

WHY not abolish the grain exchanges? In order to forever lay the ghost of criticism that has followed grain markets since the foggy days when bad practices really existed, why not in one fell stroke end all futures trading?

It is difficult to conjure up a situation that would bring about greater chaos in any single industry. The whole theory of futures trading, based upon the grain futures system, has become far more deeply rooted in the commercial structure than is generally realized.

Out of the confusion incident to futures markets, one fact shines brightly. Bear it in mind: Futures trading has come to stay. It is expanding throughout the world. One industry after another is turning to it as a proved stabilizing influence—as a means of expediting commerce.

Glance at events of the past 60 days. Roumanian farmers and millers are clamoring for a grain futures market. It will save them money, they say. So do their economists and marketing students. Portland, Ore., and Vancouver, B. C., are launching grain exchanges for greater marketing economy. A silk futures market has been opened in New York. Plans are being pushed rapidly for a crude oil exchange. A wool futures exchange is in the offing. Memphis is creating a cottonseed oil exchange. Talk of a coal exchange is heard again. All are wanted as stabilizers and as economies. Hamburg recently opened a new grain futures market. It was at the request of farmers and other German grain interests. Many years ago Germany, at the demand of radical farm leaders, outlawed the grain futures markets. For years those markets had been under bitter attack. Finally in desperation the merchants threw up their hands. A law was passed. Futures trading was abolished. Then the real trouble began. Buyers of grain paid the farmers as little as possible. Farmers had no way of knowing true values. There was no central market registering prices based on world requirements and world supplies,

or even domestic needs and supplies. So in one district a farmer might receive several cents less per bushel than his neighbor a short distance away.

Disaster for the producer resulted. A distressing condition existed throughout the trade. Germany saw her mistake, but waited. The farmers should decide for themselves. They had permitted a noisy minority of professionals to turn them against futures trading. Now they would have to make their own decision as to bringing back the futures market.

After a few years of bitter struggle under the uneconomic situation that existed, the German farmers themselves rose up and had the anti-futures law repealed. They had discovered the high value of the grain futures market. But their discovery was costly, for during the period of no futures trading the losses to agrarians was great.

History holds no more imposing story of the practical value of the futures market. A true test was made. The result was indisputable evidence of the mistake farm leaders and politicians make when they destroy or cripple the farmer's market without replacing it first with something better.

There is an intelligent and an unintelligent way of viewing the subject of grain markets.

Plainly it is both unfair and childish to pour abuse upon the grain futures markets when big crops depress prices. Commonsense tells us that a price registering machine—and that's what a futures market is—does not make prices but simply records prices. Again, commonsense tells us that big crops bring low prices and that the machine must register such prices whether it wants to or not.

It has been the unfortunate habit of certain politicians to wholly confuse the marketing situation by shouting catch phrases about the markets depressing prices, phrases intended to make the farmers think exchanges are made up of a den of thieves and gamblers. A reading of the membership list of, let us say, the Chicago Board

of Trade or any of the other major grain markets, will reveal the names of officers of co-operative wheat pools, farmers' elevators, railroads, milling, manufacturing and exporting companies, large banks and corporations of varied types. Certainly these representative types of American citizenship are not engaged in a business such as is pictured by the blatant and biased politician.

More likely the politician, seeking to get over some measure with his name attached, is harking back 40 years to those days when all markets were being bludgeoned and dragooned by the old-time speculator, who has long since faded into obscurity and who has left no counterpart.

Such critics forget the rigid restrictions today of the Grain Futures Act which gives the Department of Agriculture complete supervision over the markets. They forget that the exchanges themselves have adopted reforms in recent years that have lifted the markets to a high plane in point of business integrity. They forget that the market now handles the speculator, not the speculator the market. We must look to the economists, not the politicians, for sound advice as to the value of the market to the farmer. If, as we are told, the cost of marketing grain has been reduced to a toll smaller than exists in the marketing of any other staple foodstuff, then we must in fairness ask what more is wanted.

Perhaps the answer will be, fewer side fluctuations. That may be possible. But when we compare swings in grain prices with swings in all other commodities, and in real estate, bonds, stocks, and an endless number of other articles, we wonder if the importance of such swings is not greatly over-rated. While in such frame of mind, it is also well to study the tremendous price fluctuations in commodities having no futures markets. A good test came right after the war, when farm articles without futures markets, such as wool and leather, fell with a thump to ruinous levels.

Price swings in grain have been reduced. They can never be eliminated. A growing crop may suddenly meet disaster. Prices shoot upward. Nature does queer things. Last June there was possibility of a very short wheat crop. Up went prices. As if by magic the season veered. Ideal weather followed. Down came prices as huge crops in this country and Canada developed. Such course in prices is inevitable.

It would seem that the time has come for intelligent, unbiased study of the subject of the service rendered by the grain exchanges. Wholesale condemnation by the politician, who when pinned down, usually displays complete ignorance of the subject and wriggles out with the explanation that "the bill was given to me by so-and-so" has lost its effectiveness. But it does further disturb the grain markets and discourages competent trading necessary to a good hedging market. Likewise it still misleads a great many farmers.

Looking squarely and impartially at this subject, with its numerous complications, the suggestion is advanced that for the good of the farmer no more legislation be enacted and no more disturbing steps be taken until a thorough investigation is made. This investigation should be positive, not negative. We have heard enough falsehoods and misrepresentations about how bad the exchanges are. And the evidence has wobbly legs. Now why not have a committee of just plain men, including representative farmers, make a study of the markets and seek to determine, among other things:

1. What service do they perform for agriculture?
2. What service do they perform for commerce?
3. How does the marketing cost compare with other articles?
4. To what extent are markets crippled by present governmental restrictions?
5. Are any new laws really needed?
6. What other grain marketing system, if any, would function more economically?

Such an investigation, shorn of all the political clap-trap of which agriculture has grown weary, might prove a salvation for the grain farmer and for the markets through which his produce passes.

A GROWING ELEVATOR BUSINESS IN MINNESOTA

The Moorhead Farmers Elevator Company* of Moorhead, Minn., was purchased by Goldberg Bros., of Moorhead and Fargo, N. D., in 1919, and since then has made an excellent showing among the successful elevators in the Northwest. At present they have an up-to-date plant which embraces all the best features of modern grain storage construction and which is fully equipped with machinery that compares favorably with other elevators of the same or similar type and capacity.

The owners operate other houses and have met with good results all along the line, due to competent management and providing the proper facilities for a progressive business in grain and certain sidelines. The illustration below will give a general idea of the appearance of the house, which is still comparatively new and has had one or two small additions built within the short term of its existence, due to the need for keeping up with increasing demands made upon the plant by a growing business.

The Hickok Construction Company was engaged in 1922 to remodel the elevator of the Moorhead Farmers Elevator Company. Handling capacity was to be increased and arrangements were to be made for additional legs, cleaners, truck dump, a 10-ton dump scale and other needed devices. Two years later, the expansion of the business necessitated the erection of a seed annex and cleaning unit, along with a warehouse, and the same construction company took care of this work.

Later on a fire destroyed the plant, but before the fire had been entirely subdued the decision had been made to rebuild and enlarge the elevator. Although excessively cold weather (it was below zero) intervened, rapid progress was made as soon as actual construction could be undertaken and in February, 1927, the new feed plant and storage house were in operation. Feed grinding constitutes a large proportion of the business, and the

house which was originally 100 feet long but has recently been increased to a length of 140 feet. This is for the handling of mixed feeds, dairy foods, chick feeds and salt. The office is a detached building and contains a large general office as well as a private office for the owners.

The elevator equipment includes three stands of elevator legs running to the cupola and a 2,000 bushel per hour automatic scale. The motors which are used were supplied by Fairbanks, Morse & Co. They are controlled by push button stations on the work floor. A power shovel has been provided to facilitate removing the grain from the cars. Grain cleaning is cared for by a disc separator. Another cleaner of the clipper type is used chiefly for the Clover seed.

In the west warehouse, adjacent to the elevator, there is a Eureka Corn Cutter, Cleaner and Aspirator, for the production of chick feed of different grades. Power to operate the work floor machinery is supplied by two 10 horsepower motors and one 5 horsepower motor. The two dump scales are 10-ton Fairbanks. The swing distributors, friction clutches, and other transmission were furnished by the Link Belt Supply Company.

The feed mill is a 24-inch Monarch Attrition Mill with two 20 horsepower motors directly connected. The mill is protected from injury and fire hazard: first by a scalper, which removes sticks, stones, straw and larger pieces of iron; and second by a magnetic separator with metal baffles which are magnetized by powerful coils connected with a D. C. generator. Tramp metal is always present in grain, and if allowed to pass through to the grinding plates, breakage, and often serious fires, result. A leg elevates the ground feed to bins, from which it may either be loaded in bulk to wagons, standing in an enclosed shed or can be sacked. There is a basement with cement floors under the elevator dump scales and feed house. The buildings are all covered with galvanized corrugated siding and roofing.

The requirements of the underwriters were care-

fully followed throughout the plant, in order to obtain the minimum premium rating. There are many features in the design and equipment of this plant which greatly increase the working efficiency both as to time and labor to operate.

ILLINOIS CO-OP. SHOWS GOOD PROFIT

Farmers' elevators have not been slow to adopt the policy of extending their business beyond the limited field afforded by dealing exclusively in grain. Numerous of the more progressive farmers' elevator companies do a general business in many commodities which are required by their farmer members and customers. In this way they have made themselves doubly useful and have added materially to their profits.

One such concern which has enjoyed commend-



WATSEKA (ILL.) FARMERS GRAIN COMPANY'S ELEVATOR

able success is the Watseka Farmers Grain Company, Co-operative, which is located in Watseka, Ill. It is on the Chicago & Eastern Illinois Railroad and has a house measuring 40 feet in width and 60 feet in length. Incorporated in 1909, the concern has progressed to the point where its continued prosperity is assured, and under the capable management of Homer W. Bell it has been keeping pace with past records during the last year.

The house is of cribbed construction and has a storage capacity of 50,000 bushels. This storage has been divided among 16 bins. Two corn shellers have been provided by the Union Iron Works, Decatur, Ill., and these have a capacity of 2,000 bushels. Three Jay-Bee Feed Grinders afford the means of making necessary feeds.

The plant is operated by means of electric power, and 15 motors have been supplied by Fairbanks, Morse & Co. These have an aggregate horsepower rated at 115. There are also three scales which were furnished by Fairbanks, Morse & Co.

The chief grains handled in the elevator are corn, oats and wheat, and during the course of a year's business some 400,000 bushels are ordinarily merchandised. Numerous other products also constitute component parts of the company's business, notably coal, feed, seed, tile and implements.

The nineteenth annual statement of the Watseka Farmers Grain Company, Co-operative, was issued September 30, 1928 and shows a net income for the year of \$18,041.41. Of this there was a distribution of \$6,806.13, a reserve for dividends of \$3,000, a reserve for patronage refunds of \$2,200, and Federal income tax of \$1,606.13. The balance of net income to surplus is \$11,235.28.

In 1928, the retail business alone amounted to about \$550 per day. Grain and merchandise sales amounted to \$351,459.86 for the year. The report concludes by saying, "This, our nineteenth annual audit, shows our capital stock \$50,100, and our surplus \$33,786.76. This is from a beginning of \$8,400. We have paid during this time over \$37,000 in cash dividends."

The officers of the concern include: Wendell P. Kay, president; John S. Anderson, secretary-treasurer and Homer W. Bell, manager. The directors are: O. J. Storm, A. J. Gillfillan, Herrick Gordon, Fred Frederickson, John S. Anderson, Wendell P. Kay and John Pierce.

STOCKS of wheat in the western grain division of Canada on November 23 were 135,500,000 bushels, against 75,971,000 a year ago.



ELEVATOR OF THE MOORHEAD (MINN.) FARMERS ELEVATOR COMPANY

buildings were so designed that the feed unit can operate entirely independently of the elevator, so that grain receipts are not interfered with by this other phase of the work.

The new elevator, which went into operation a little less than two years ago, has a capacity of 40,000 bushels, and this is divided among some 26 bins, all overhead. Twenty-one of the bins are of carload capacity, and the five smaller ones are used to service the seed cleaner and to provide facilities for certain classes of screenings. The driveway is underneath the outside row of bins and a second driveway for handling grain coming in for custom grinding and cleaning also handles purchased grain during the busy season. Grain from the second driveway dump is transferred to an elevator leg, from which it may be put in the elevator bins, shipped through the automatic scale or spouted to bins above the feed mill.

Next to the track, west of the elevator, is a ware-

LONDON WHEAT FUTURE MARKET

A wheat futures market will be re-established in London on January 1, after having been non-existent for 25 years. Members of the grain trade in England have been urging such action and a committee has already framed rules for trading, which will be conducted on the Baltic Exchange. The London Corn Trade Association will act as a clearing house and all transactions will be registered with it.

The Corn Trade Association already does this kind of work in connection with La Plata corn and

Three Million Bushels Additional Storage at Superior

New Unit of Storage for A. D. Thomson & Co., Brings Company's Storage Facilities at Superior, Wis., to 10,000,000 Bushels

SOME idea of the volume of grain which has to be handled in the Canadian area, especially that section which centers at the western end of the Great Lakes system, can be gleaned from the fact that according to Government reports, stock of wheat in the western grain division of Canada on November 23 last was 135,505,000 bushels. This figure compares with 75,971,000 bushels a year ago. Receipts and shipments at Fort William-Port Arthur continue heavy and will continue large until the closing of the Lakes, say the Government statisticians in their late November report. December 7, although earlier than the closing date in past years, was suggested as the possible closing date at the time this was being written, though no definite date had been set. Total receipts at Fort William, Port Arthur and Vancouver from August 1 to November

same depth (20 feet three inches). All of this construction improved facilities and assured the prominence which was later to come to Superior, Wis., as a grain port.

Nearly five years ago, writing for the pages of this journal, a contributor said, "There are 15 elevators at Superior, most of which have rail and water connections. Great Northern Elevators 'X' and 'S' are operated by A. D. Thomson, lessee. They have a total capacity of wheat storage of 6,800,000 bushels. During the fall's work with average receipts they employ approximately 175 men. Elevator 'S,' the larger of the two, has a total capacity of 3,140,000 bushels, with 500 house bins, eight shipping bins, nine receiving legs, nine shipping legs, eight cleaner legs and four screening legs. The storage annex has a total capacity of 2,250,000 bushels contained in 123 bins. There are 18 transfer belts in operation. Elevator 'X,' with a total capacity of 1,500,000 bushels, has 127 house bins, four shipping bins, four receiving bins, four shipping legs and four transfer belts."

New storage has recently been added to the plants named and facilities have had great additions. The working unit now consists of the two houses named and two sets of concrete bins, having a total capacity of 10,000,000 bushels.

The total receiving capacity of the plant is 500,000 bushels daily, and the shipping capacity is

The superintendent of Great Northern Elevator "S" is A. B. Clark.

The house measures 478 feet by 86 feet, and this addition represents 3,000,000 bushels' additional storage, with 239 bins constituting a single annex, which adds to existing facilities of handling a receiving capacity of 30,000 bushels hourly and shipping capacity of 35,000 bushels hourly. The new building was designed and constructed under the direction of The Barnett & Record Company, which has offices in Minneapolis, Duluth and Fort William, Ont.

HEAVY BARGE LINE WHEAT FOR EXPORT

The movement of wheat by inland waterway barges to New Orleans from Midwest and upper Mississippi territories may amount to several million bushels during the 1928 export season, according to present prospects. W. M. Hough, traffic manager for the Barge Line at New Orleans, states that there will be a movement of over 1,000,000 bushels of wheat by barge from the Minneapolis-St. Paul region of the upper Mississippi. This is practically a new movement, as Barge Line service has only recently been extended to that territory. Regarding movement from the Midwest states of Nebraska, Kansas, Missouri, etc., Mr. Hough would make no estimate, believing, however, that it will be limited only by the capacity of the Barge Line equipment. There are at present 300,000 bushels of wheat actually on barges enroute from St. Louis to New Orleans for export, and such shipments will continue through the season, so that the total may amount to several million bushels.

All of this export wheat is handled at New



WATER SIDE OF SUPERIOR ELEVATOR

23 amounted to 202,105,000 bushels against 133,389,000 bushels during the same period in the preceding year. Shipments from these points have amounted to 184,731,000 bushels against 131,976,000 bushels last year.

From this resumé it can easily be understood that the requirements for adequate storage in the area mentioned are extensive. On the other hand, there is the vast area in American territory adjacent which must be considered in figuring what goes through the terminal houses on the Great Lakes at this end.

It is not surprising that Superior, Wis., with an elevator capacity well over 20,000,000 bushels, ranks as one of the greatest grain ports of the world. It is within the Duluth switching district and most of the grain firms have their offices in Duluth, so that their business is identified with that city.

Superior, however, maintains its individuality in the grain trade, and there is a reason for its prominence as a grain port. In the first place, it has an almost perfect natural harbor, and the railways recognized this important commercial factor and built their lines to serve the waterfront as effectively as possible. As the need has arisen, trackage has been extended and multiplied until today there is rarely lack of facility for prompt handling of any quantity of grain. The first elevator in Superior was erected in 1886, and by the spring of 1894, the capacity had been increased to 14,675,000 bushels.

The Sault Ste. Marie River with its fall of 18 feet in half a mile closed Lake Superior to navigation from the lower lakes until 1855, when the State of Michigan built a ship canal around the rapids at Sault Ste. Marie. In 1881, the Federal Government did its bit by building a new one. This served until 1894, when a third one was built; and the year previous the Canadian Government had built another canal a little larger but with the



ELEVATOR AT SUPERIOR, WIS., LEASED BY A. D. THOMSON & CO.

100,000 bushels per hour. The number of bushels handled in a year by the complete working unit depends upon the crop, of course, and is estimated at from 35,000 to 50,000,000 bushels.

In order to operate this large plant an aggregate of 3,800 horsepower is required, and the motive power is electrical. Eleven electric motors have been provided by Fairbanks, Morse & Co., and these include units of various sizes, some of which are 40, some 50 and some as high as 75 horsepower. Silent chain drives have been installed, averaging about 16 feet for each motor.

Operation control is by means of interlocking push button devices. Eleven belt conveyors are included in the equipment. These range in width from 36 inches to 48 inches and in length from 312 feet to 1,023 feet. Weller Trippers are used throughout.

The principal grains handled are wheat, oats, barley, rye and flax.

The terminal house operated by A. D. Thomson & Co., Inc., is owned by the Great Northern Railway Company, from which the operating concern leases it. The officers of the lessee include: A. G. Thomson, president; C. F. Haley, vice-president and treasurer; and J. W. Galvin, secretary-treasurer.

Orleans through the Public Grain Elevators of the Board of Commissioners of the Port of New Orleans, for storage and trans-shipment into ocean vessels. The grain is discharged from barges by two marine legs, each with capacity of 15,000 bushels an hour—the only equipment of this character on the Gulf of Mexico. The marine legs deliver the grain into the storage bins of the Public Elevators, or can deliver direct into the holds of ocean ships. The Port Commission operates a total grain storage capacity of 5,122,000 bushels, with 10 loading berths for steamships, in addition to barge discharging berths and a modern sacking wharf for the convenience of shippers.

REWARD WHEAT POPULAR

The demand for Reward wheat in Canada is now greater than the supply. Reward is one of the new early maturing varieties and has met with great popularity.

The cereal division of the experimental farms at Ottawa has 10,000 bushels available for distribution and 350 growers who were permitted to grow Reward will have a surplus of 2,000 bushels, making 12,000 bushels in all.



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We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

Official Paper of the Grain Dealers National Association and of the Illinois Grain Dealers Association

CHICAGO, ILL., DECEMBER 15, 1928

CORN PAPER

BOOKS, magazines, and newspapers are now being printed on paper made from corn-stalks, and as a result, the stock of stalks has gone up materially. The starchy kernel now has a full-fledged market competitor in the fibrous part of the corn plant.

To what proportions the cornstalk processing industry shall grow is dependent, to a degree, on how much of the profit involved the processors are willing to share with the farmer. So far, the stalk producers have been given an even break. The factories, owing to the bulkiness of their raw product, must be located at points surrounded by corn lands, and in this environment, the farmer's chance of getting a fair share of stalk profits, is good.

THE DISPUTED GRADE NO. 5

UMPIRING baseball games, and inspecting wheat are two life works which we eliminated from our own particular program a long time ago. There are natural-born umpires, however, and we suppose the southwestern wheat umpires involved in the recent Kansas wheat grading controversy, consider the whole affair just as part of a year's work.

When internal strife develops in the baseball world, there is Judge Landis to appeal to, and it is fortunate that the grain trade also has a super-referee, H. J. Besley, of Washington, D. C. Following the Kansas City conference, at which protests were made against classifying ground-odor wheat as No. 5, large samples of

the grain in question were sent to Washington. At present these samples are being tested to find if the odor is lost in milling as the dealers claim. If the test proves their point, such wheat probably will henceforth be graded as commercially sound, and the dealers will have done the growers a favor worth notice.

Advice to this office is that the report from Mr. Besley's office in Washington will be made "in about a week." Clearing up this matter of ground and straw odor at headquarters will help dealers, farmers and inspectors alike to have a happy new year.

A FOOL PLAN

ARAT for every person is the Federal estimate of the nation's rodent population, and since the advent of cold weather, many elevator managers no doubt have evidence that the grain trade has more than its per capita share. To rid an elevator of the pests, once they have moved in, is no easy task.

Ever since the Pied Piper played his trick on the rats of Germany, rats have been a wary tribe, and avoid nine out of ten traps as a grain dealer avoids a falling market. Poisoned food works—sometimes—if unpoisoned food is put in their runs for a few days first to build up confidence.

A dealer tells us, however, of a device he uses which is better than all the Rube Goldberg rat traps, plaster-of-paris, and patent poisons he ever has tried put together. He cuts strips of fly paper one and a half inches wide and scatters them about the runways. The rats get this fastened to them and become so scared they leave the premises. "A fool plan," he says, "but it works." What more can you ask?

THE MARKET FOR DURUM

WHILE Durum wheat prices, along with those of other classes have averaged lower to date than for any other season since 1923, the market for this grain has held relatively firm, reflecting the increased takings from this season's large crop and a moderately active demand for all grades of this class of wheat, according to the Bureau of Agricultural Economics.

The domestic Durum wheat crop in the four principal states is now placed at 85,000,000 bushels, or about 9,000,000 bushels more than last season's harvest. This, together with a carry-over of Durum wheat at the beginning of the season 3,000,000 bushels larger than last year, indicates a total increase of about 12,000,000 bushels in the supply available for distribution during the current year.

Marketings of Durum wheat at Duluth and Minneapolis have been around 9,000,000 bushels larger than for the corresponding period last season and account for practically all the increase in this season's crop. Not all of this increase, however, has passed on into consuming channels, since stocks of Durum wheat in store at these markets have shown an increase of about 3,000,000 bushels over the accumulations for the same period last season. The remaining increase in the marketings at Duluth

is no doubt largely accounted for in heavier shipments via the lakes to Buffalo and to Canadian ports.

WHAT ARTILLERY LIEUTENANTS CALL "DIVERTED FIRE"

PROFESSIONAL farm relievers have accomplished one thing, in spite of the repeated defeats of their bills in recent sessions of Congress. They have drawn the enemy's fire almost wholly to the one sector represented by the phrase "equalization fee." The result is that the fee is doomed, but that the big talk of hundreds of millions of dollars being doled out to "stabilize" prizes, "encourage" co-operatives, etc., goes unchallenged.

The McNary Bill now before the Senate, for instance, provides that when the farm board finds that a surplus in any crop is likely to occur, it may make loans up to \$225,000,000 to the stabilizing corporations for the buying and storing of the (theoretical) surplus.

How any board can accurately predict surpluses, how and when the stabilizing corporations can gracefully unload, and how the loans are to be repaid are mere details not mentioned in the bill, but which will no doubt be settled later—by the taxpayers.

ELEVATOR INVESTMENTS

IT IS common practice for elevator owners to use their credit at a bank, borrow at a 5 or 6 per cent rate, and place the money in sound investments that return from 7 to 8 per cent, thus making a neat profit out of the difference. Similarly, the average dealer carries on a large proportion of his business on money borrowed from one source or another, reaping his fair profit out of the difference between the net return on his grain or sidelines and what he has to pay for the use of the money.

Why is it then that so many plant owners balk at the financing of new elevating equipment, up-to-date scales, feed grinders, or power units? It may be because this equipment is looked upon purely as an expense instead of an investment. Such an attitude is particularly apt to be built up in connection with power equipment. In prosperous times grain business executives do not feel the urge to search out operating wastes, but in such periods is the ideal time to install new machinery which, by its efficiency, will change red ink to black during any lean years that may follow.

Chicago has a funny mayor now, but it once had a witty one. The abandonment of the famous old Board of Trade building last week, called to mind the dinner which marked the opening of the "new" exchange home in 1885. Carter Harrison, then Chicago's mayor, was toastmaster at the dinner and Emery Storrs was one of the speakers. Mr. Storrs, in his remarks mentioned that the year he was born, the locomotive was invented. Mayor Harrison caused a laugh, when, before introducing the next speaker, he said: "It is indeed fitting that Mr. Storrs and the locomotive were born the same year. They both have been blowing off steam ever since."

EDITORIAL MENTION

What will become of our forests if Senator McNary continues as chairman of the Senate Committee on Agriculture and Forestry?

Temporary quarters for the Chicago Board of Trade are only a stone's throw from our office, and we intend to help the Grain Futures Administration keep track of all wheat corners.

Corn is king of farm crops in Ohio. The value of this crop last year, according to statistics now released, was \$84,000,000. Wheat came in about a block behind with a value of \$36,000,000.

A Texas elevator firm is suing a railroad for a 29-cent loss incurred by alleged grain weight shortage. The largest state in the union thus wins the distinction of having about the smallest court claim on record.

Voters in Tacoma, Wash., last month approved bond issues for a municipal airport and a municipal grain elevator on the same ballot. We try to be air-minded, but suggest, anyway, that the elevator investment will be the first one to pay for itself.

The occasional collapse of concrete elevators suggests that Bulletin No. 185, of University of Illinois Engineering Experiment Station, may be of interest to elevator engineers. Its title is "A Study of the Failure of Concrete Under Combined Compressive Stresses."—Nice light reading for the holidays.

A total gross turnover of \$324,000,000 and total grain handlings of 234,000,000 bushels, are the two features emphasized in the report of the Canadian pool for the 1927-28 crop year. A point tucked away rather remotely in the voluminous record is the fact that pool exports have declined. Of course, as long as the domestic market can absorb a surplus theoretically produced for export, the pool can make a showing on paper.

On a purchase of snap ear corn, unless it is definitely understood and so stated in the confirmation of sale, the seller cannot be held to guarantee the grade of corn after shelling, nor the shell-out weight at destination. This is the rule laid down by an arbitration committee of the Grain Dealers National Association, in settling the claim of a Tennessee grain firm against a Texas concern. Corn on the cob requires a good set of contract teeth.

After a special investigation requested by the Senate, the Interstate Commerce Commission is reporting back to that body that in its judgment conditions do not warrant a reduction of grain rates in the northwestern states to the level of grain rates in Western Canada. The Interstate Commerce Commission thinks that conditions in Canada and in the United States are not quite comparable and that conclusions cannot be drawn from one to the other. The finding of the official rate-making body of

the United States will again call public attention to the grain rates in Western Canada, which are on a lower mileage basis than those in any other country. It is well that the people of Canada should not forget this fact and it should do Canada good for the people of other countries to have it impressed upon them. While we will feel sorry for the disappointment of the farmers of the northwestern states, we may be excused if we see in the report of the Interstate Commerce Commission a bit of good immigration and promotion literature for Canada.—*Grain Trade News*.

We suppose we'll never hear the last of this.

CROSS-SECTION NOTES ON THIS ISSUE

Tin is only one of the products for which a futures market, patterned after the wheat pit, now exists. Why futures trading is becoming more popular and necessary is told in a future article on page 355.

Private management takes over a co-operative grain firm, and presto!—Read the Minnesota elevator story on page 356.

Remember the old Layhart elevator in Minneapolis? That was transferred to new owners in 1911, and formed the nucleus of property for one of Minnesota's best known grain companies whose story is front-paged this month.

Car-pullers. Some new ideas on this old subject written by a man who knows the ropes. page 352.

A Sales-manager for a grain firm whose annual gross is reckoned by the hundred millions reviews the past pool-grain season on page 351.

Dovetailing the lumber and grain business in a Nebraska city. Page 364 holds an account of how its been profitably done.

Retail sales alone amounted to over \$500 a day in 1928 for the co-op firm described on page 356.

Superior, Wis., has some grain storage facilities of superior, modern type. A trip through an important part of them begins on page 357.

Keep for reference E. A. Duddy's concluding installment on "The Growth and Distribution of Elevator Storage in the United States."

Taps have sounded for a world-famous grain exchange building and for a noted grain market master this month. (Terminal Markets Department.)

An elevator of revolutionary design has been erected for a Venice mill to replace its flour warehouse. All flour is sent from the packers directly to the top of the elevator and discharged into spiral tracks. It can then be discharged into steamer, car, or truck, by the operation of control levers managed by one man. The law of gravity plays no favorites, but so far, grain elevator operators are among the few who have made the most of it.

There are 4,558 grain elevators in Canada with a total capacity of 284,818,200 bushels. The 4,439 country elevators still hold a slim lead in the matter of capacity, with a space of-

fering for 146,639,200 bushels. Terminal, manufacturing, private, and public elevators number 19, with an aggregate capacity of 138,179,000 bushels. All the country elevators, by the way, except two, are in the three prairie provinces of Manitoba, Saskatchewan, and Alberta.

After a season in which all former grain movement records out of Fort William and Port Arthur were shattered, grain shipping out of Lakehead stopped on December 13. A total of 278,780,000 bushels of grain were shipped from the twin ports this year, against 193,000,000 bushels last year. While the official close of the season was November 30, a considerate weather man allowed the grain fleet to continue at its job through December 12, final date on which insurance was obtainable.

Between August 1 and the first of this month, Canadian farmers in the prairie provinces have delivered to market 363,000,000 bushels of wheat, just 78,000,000 bushels more than the previous record quantity delivered in 1923. How much there is yet to come forward is debatable, as on the basis of the government estimate, 85 per cent of the crop already has been marketed, while figures of the Evans Statistical Service show that only 72 per cent is the average proportion to be delivered in the first four months.

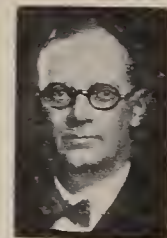
Brought to light in North Hampton, Mass., is an old diary which gives a sidelight on early American corn. Benjamin Franklin, it seems, received from India a little package from some well wisher, and the package contained a whisk broom with broom corn seeds left on the stalks. Mr. Franklin planted the corn in his yard and four or five stalks grew. He passed the stalks around and one of the recipients started a culture at North Hampton. Four acres finally were planted, and the American broom industry, born of the Franklin corn, swept the feather duster into general discard.

Two Germans, Messrs. Rumm and Taus, have subjected grain to ultra violet lights, and report that under the lamp, wheat shows up blue, barley green, oats pale blue, and corn "a light purple blue," whatever that is. We don't know just what good this is supposed to do, but the experimenters, after recounting the results of further research, say: "We hope to have indicated a method of distinguishing rapidly and with little trouble, wheat of the new crop from old wheat." We know a lot of dealers who can judge wheat with fair accuracy with only the primitive aid of daylight or a 60-watt white bulb.

If Herbert Hoover, President-designate, still has a keen interest in wheat, he might well stop off at Rosario, the second largest grain shipping port in the world. Its record so far is 3,800,000 tons in a year. Much of the grain shipped from this point is corn, but Bahia Blanca is the great wheat port of the South Atlantic, and in a good season as much as 2,500,000 tons of the bread grain are handled. The proposed 2,500,000-bushel elevator there will reflect the growing trade.

W. C. MITCHELL
Minneapolis

NEWS OF THE TERMINAL MARKETS

C. D. STURTEVANT
Omaha

WINNIPEG HONORS OLD MEMBER

A. K. Godfrey, formerly president of the Winnipeg Grain Exchange and for years secretary of the Canadian Elevator Company, recently retired from active business. This made occasion for a complimentary dinner to Mr. Godfrey, given by members of the Board of Trade.

The dinner was presided over by James A. Crow, president of the exchange, and during the course of the evening Mr. Godfrey was presented with a gold watch and chain and with a permanent ticket of admission to the trading floor.

OMAHA EXCHANGE ELECTS

On November 30, E. W. Taylor was elected president of the Omaha Grain Exchange of Omaha, Neb. He succeeds O. E. Harris of the Trans-Mississippi



E. W. TAYLOR

Grain Company. Mr. Taylor has been a director of the exchange for four years.

Mr. Taylor has been in the grain business for 28 years, commencing at the age of 19 years at Mason City, Iowa. Today he is president of the Nye & Jenks Grain Company of Omaha. That company and its subsidiaries has had Mr. Taylor's services throughout his entire business career.

W. T. Burns, of the Burns Grain Company, who is serving his fifth year as a director, was elected first vice-president. C. H. Wright, of the Nebraska-Iowa Grain Company, was also elected second vice-president. Mr. Wright has twice been president of the exchange, in 1921 and 1922. W. J. Hynes, of the Hynes Elevator Company, is the treasurer, for the fifth time; and Frank P. Manchester enters his twentieth year as secretary.

STOCK TRADING ON CHICAGO BOARD

The following statement has been issued by President Samuel P. Arnot of the Chicago Board of Trade: "For the information of our members and such portion of the general public as may be interested, I wish to make the following statement: The Chicago Board of Trade will inaugurate trading in securities just as soon as it is possible to make the necessary arrangements for the safe and satisfactory conduct of the business. The business will be conducted in accordance with the highest ethical standards. Securities of corporations which make application for listing and are approved, will

be listed irrespective of whether they are already listed on other exchanges. We will trade in no securities except those listed on our exchange, and nothing but high grade securities will be listed."

This statement was given out after the committee of the Board, consisting of President Arnot, Thomas V. Wickham and Silas H. Strawn had conferred with a committee of the New York Stock Exchange in regard to the future plans of the Board. These plans evidently met the approval of the New York committee.

That securities trading will give a new lease of life to the Board of Trade is evidenced by the advance in the value of memberships, increasing from about \$6,000 to over \$40,000 since the new program was decided upon. If securities trading becomes a successful adjunct of the grain market, memberships will be worth much more than the present price.

The Chicago Board is not going to make the mistake that Los Angeles did a short time ago. The exchange on the West Coast began trading in securities without having received application from the corporations whose securities it traded in. The New York Stock Exchange immediately threatened to cut off ticker service, and the practice stopped. President Arnot specifically states that "securities of corporations which make application for listing and are approved, will be listed irrespective of whether they are listed on other exchanges."

IMPORTANT MEETING FOR KANSAS CITY

On January 8 the Kansas City Board of Trade will hold its annual meeting and besides the election of officers many matters of interest will come before the members. A Nominating Committee has been appointed, consisting of H. C. Gamage, H. G. Irons, C. M. Hardenbergh, C. E. Watkins and C. H. Black, and they will name the candidates for president, second vice-president, six directors and five members of an Arbitration Committee.

The directors of the Kansas City Board of Trade have approved a plan for establishing a stock exchange in connection with the grain exchange. This matter will probably be laid before the membership at the annual meeting in a definite way if the plans have progressed far enough by that time.

Another matter that will require a vote is a recommendation by the directors of a change in Section 5, Article 10, of the rules, fixing a minimum commission charge of \$8 per car on grain and \$5 a car on millfeeds. The present rule has no fixed minimum.

VOLUME OF GRAIN FUTURES TRADING IN NOVEMBER

The volume of futures trading on the Chicago Board of Trade in November marked a considerable falling off from the preceding month and also from the volume of the corresponding month last year. The total of November, 1928, was 1,025,792,000 bushels divided among the various grains as follows, for the purpose of comparison the October figures being given in parenthesis: Wheat, 542,953,000 bushels (714,916,000); corn, 418,806,000 bushels (435,720,000); oats, 40,662,000 bushels (33,955,000); rye, 23,371,000 bushels (43,277,000).

The average open contracts in futures at Chicago in November, "short" side of contract only, there being an equal volume on the "long" side, were: Wheat, 129,718,000 bushels, compared with 91,783,

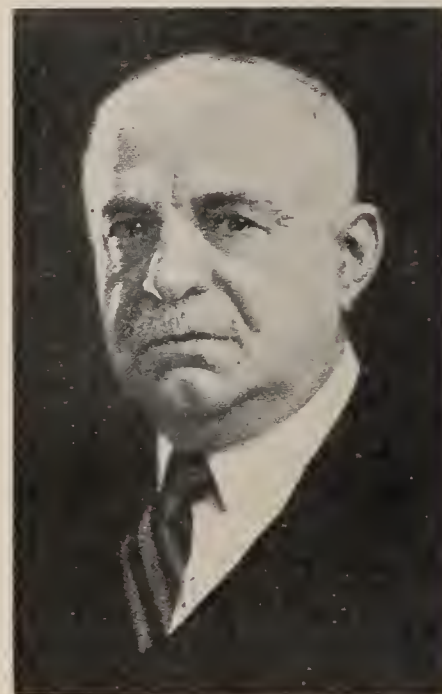
000 a year ago and 120,644,000 in October; corn, 90,553,000 bushels, as against 77,134,000 last year and 81,548,000 in October; oats, 29,997,000 bushels, compared with 35,026,000 a year ago and 29,314,000 in October; rye, 12,222,000 bushels, as against 10,768,000 bushels last year and 11,826,000 in October.

The total of futures trading in November in all the markets of the country was 1,304,834,000 bushels, compared with 1,478,477,000 in November, 1927.

JAMES A. PATTEN DIES

At the very hour on December 8 when grain traders were moving the last of their belongings from the old Chicago Board of Trade, James A. Patten, perhaps the best known member of that organization, passed away at his home in Evanston, Ill. A cold, caught at the West Point-Nebraska football game, developed into bronchial pneumonia. Mr. Patten kept his interest in affairs up to the very end, his peaceful passing being watched over by his devoted wife and a son, John L. Patten. Mrs. Agnes Patten Wilder, a daughter, was on her way from her home in California when the end came.

Mr. Patten is the only man who ever successfully cornered wheat, corn, oats and cotton. He was wont to deny that he had cornered any of these commodities. His far-reaching sources of information advised him of a coming shortage in each



THE LATE JAMES A. PATTEN

of them and he bought heavily. In each case perhaps natural conditions would have raised the price. The fact remains that a fortune came to him on each occasion.

But Mr. Patten was not just a plunging speculator. All his life he had been a deep student of grain and the economic factors regulating prices. Born on a farm near Sandwich, Ill., in 1852, he learned how grain is grown. His uncle, John Beveridge, was governor of Illinois when Mr. Patten was a young man and secured for him a job on the state grain inspector's staff at \$6 per week. After four years at that work Mr. Patten, in 1878, joined the Chicago Board of Trade, trading as a clerk for the G. P. Comstock Company. A younger brother, George W. Patten, had preceded him to Chicago and early in the '80s the two brothers

joined with H. J. Coon to form the firm of Coon & Patten Bros. A few years later the Patten brothers branched out for themselves, but a number of years afterward George Patten died of tuberculosis, as his father had before him. Since that time James Patten was a silent partner in the firm of Bartlett Frazier & Co. In recent years his trades in grain had not been sensational, but his other business interests expanded.

Mr. Patten held only one political office, that of mayor of Evanston, but he was keenly interested in politics and was a liberal supporter of the Republican cause. His philanthropies were enormous, and no one ever knew the exact extent of his liberalities to colleges, charitable institutions and many other causes which he felt were deserving.

Mr. Patten's place in the world was expressed most aptly by Vice-President Charles G. Dawes, long-time friend of Mr. Patten and his fellow townsman, who was notified in Washington of his friend's passing. He said:

"James A. Patten was a friend of all mankind, and his generous heart responded to any call for service, however humble or great. In our home community of Evanston, to which he was a great benefactor, to the city of Chicago, and to his country, his death means a great loss."

CHICAGO BOARD IN "MOVIE-TONE"

Probably for the last time in its history, the Chicago Board of Trade has become a "movie-tone" feature. A Fox film is now being shown, in which the action of the wheat pit, the quotations bridge, the exterior of the old building, and various other familiar scenes of the exchange are interesting portions. From the standpoint of publicity, this film is expected to be highly valuable to the grain exchange, and it has been estimated that in the first 60 days of the showing of the pictures, 30,000,000 people will be reached. The picture has been released throughout the nation, and after its news value has been expended, it will be turned over to the Fox educational service, for the use of schools and colleges.

A preliminary scene in the continuity shows Edward Jerome Dies of the Chicago Board, making a few explanatory remarks. He relates in this brief address that while politicians have been telling the public for years their version of the position of the pit in contemporary affairs, an opportunity is now at hand to give an accurate account of the exchange's functions. He explains that a more discriminating society now has shorn the pit of some of its bad features of the past and retained only the good; that today the Chicago Board is a great artery through which the life blood of grain commerce is continually throbbing; and that it is in fact the great central market of the entire world, and in its teeming pit many foreign nations purchase their future bread supplies. "Survival and growth of the grain exchange," says Mr. Dies, "is due to the fact that it saves money both for the producer and consumer by marketing grain at a lower cost than any other staple food stuff."

OPTIMISM AT DECATUR

This has been one week of glorious weather for outdoor work; no snow covering here, but points farther north report some. Temperatures moderate, livestock doing well on pastures and outdoor roughage. Wheat, of course, is looking well.

Banks talk more cheerful and local dealers report holiday business fairly satisfactory. Wagon roads fine for this time of the year. The corn crop now is practically all harvested.

That one-third of Illinois commonly called Egypt does not usually raise a large amount of corn, but this year they harvested even less than usual, though husking returns from balance of state are good enough to permit us to subscribe to the fact that enough corn was raised in Illinois this year to fully meet the Government estimate; the quality has pleased all buyers except for moisture and that extra water is now going out of cribbed corn as fast as one could expect. Feeders report that our Illinois corn goes farther than for several years

past, while the corn mills have less waste and larger yields of products than ever hoped for earlier in the season.

Farmers commenced feeding this corn crop September 15—since October 15 a steady movement to market from this section has been in progress (not so heavy farther north in the state). The writer has seen no empty cribs to speak of recently—all seem full to the top. Our guess is that recent decline in market has checked new sales of corn by the grower and that the coming week may see the peak of this movement to market. Another week of present brand of weather will permit sellers to fill most of the old sales made during past few months and give them a chance to stop, look and listen.

We just heard of death today of James A. Patten, who was considered by many the best grain merchant of his generation. Of late years he has been quite a philanthropist. He will be greatly missed by many.—H. I. Baldwin & Co., Decatur, Ill., market letter of December 11.

AN HISTORIC OCCASION

On Friday, December 7, the final ceremonies of leave taking were held on the trading floor of the Chicago Board of Trade. For the last time the trading gong had sounded. The old building is coming down to make room for the beautiful new building, 600 feet high, on the same site.

Many of the traders present at this last function in the old building had spent their entire business careers within its walls. There was a natural feeling of sadness, at this breaking of old associations, but over all was the optimism for the future, the looking ahead toward the bigger and finer

"Our old home spans the period from the old to the new Chicago," said President Arnot. "It must now bow to progress. We shall soon return to the magnificent home on the present site. We are confident that when we return we shall have entered a greater era of peace, prosperity and contentment."

Other speakers told of early history of the board. It was recalled that in 1886, Elmer A. Sperry, a former Chicagoan, placed a beacon on the tower. There were 20 arc lights, each of 2,000 candle-power, and it was Chicago's brightest light, casting its radiance three blocks away and visible some distance beyond the shore of Lake Michigan. Today Chicago is preparing to erect the Lindbergh light, a 2,000,000,000 candle-power beacon credited with being able to throw a beam 210 miles long and visible in six states—this light donated by the same Sperry, who is building such lights to guide airplane pilots through the night.

The traders were sad over leaving their old building but proud of the plans for the new one which, with its land, will represent a value in excess of \$20,000,000. The old building required three years to build, the new one will be completed in 18 months.

NEW ELEVATOR FOR WICHITA

The Sam P. Wallingford Grain Corporation has secured the site and will begin immediately the construction of a grain elevator of 1,125,000 bushels in Wichita, Kan.

The head house and first unit with a capacity of 500,000 bushels are to be completed by May 1. The construction will be reinforced concrete and



MEMBERS OF CHICAGO BOARD OF TRADE AT FINAL SESSION DECEMBER 7

things that the new structure will typify.

Taps, sounded by buglers of the Board of Trade Post, American Legion, closed the ceremonies and the assemblage formed a procession and marched to the temporary Board of Trade at 453 South Clark Street, which is a three-story building constructed just to house the Board of Trade until their new building shall have been finished.

The closing ceremonies were presided over by James A. Begg, a director, and the principal addresses were made by Reuben G. Chandler, the oldest living ex-president of the Board, President Samuel P. Arnot, and John A. Bunnell, who served for three terms as president.

Mr. Chandler recalled the first day he stepped upon the trading floor of the Board in 1875. It did not own its own building then. But even then it was an important institution. It had been founded in 1848.

Forty-three years had brought many changes since the building was first occupied. Chandler recalled the kid gloves and London clothes of J. K. and Archie Fisher; Livernois, the French-Canadian trapper who became a trader, and other old-time figures long since vanished from the pits.

President Arnot spoke of a sense of sadness in saying farewell to the old building with its relics of Civil War and of the board's earliest days.

complete telephone and signal system will be installed. Each storage tank will be equipped with thermometer. In fact, every device for safeguarding life and grain are to be installed.

Two 1800 bushel sinks under the two service tracks will permit the unloading of a car of grain every 10 minutes and two cars can be unloaded simultaneously. Hopper scales in the top of the head house will permit the loading out of a car every six to eight minutes and loading and unloading may be performed at the same time.

In Mr. Wallingford's words, "This may not be the largest elevator in the country, but it will be one of the best equipped, with all the latest machinery and other necessary appliances for the efficient handling of grain."

Sam P. Wallingford, who will operate and manage the elevator, needs no introduction to the grain and milling trade. He has been actively engaged in the grain business and a member of The Wichita Board of Trade since 1911.

C. E. COE has resigned as representative of C. U. Snyder & Co. at Memphis, Tenn., and will hereafter conduct a brokerage business. Mr. Coe is president of the Memphis Merchants Exchange and has been active in that exchange for a number of years.

INDIANA CORN RECEIPTS HEAVY

Not much doing in wheat in our market at the present time, only an occasional car being inspected and not what you might call an urgent demand for what little wheat we are receiving.

Oats receipts are not burdensome. We are experiencing a good demand which we feel sure will continue.

Corn receipts have been rather heavy for our market. We have had nice premiums on cash corn up to the present time but if weather conditions continue good we are inclined to look for an increase in receipts which may cause some rather sharp breaks in our cash corn in spite of the fact that up to the present time we have experienced a very good demand. We are receiving corn of mighty good quality from Illinois, but Indiana corn is inclined to be light weight and still runs fairly heavy in moisture.—*The Cleveland Grain Company, Indianapolis, Ind., market letter of December 11.*

PEORIA CORN MARKET GOOD

This market has been handling very little wheat on this crop and consequently we have nothing special to report on wheat.

The corn business has been a good one. The local industries are using daily over 80,000 bushels and we have been able to supply them. The arrivals have varied a good deal—some very light days and others heavy—the average quantity has been good and our prices have been on about a par with other competing markets. There has been nothing special in the situation since our last. We notice, however, that there are a good many sections of the country now that are moving very little corn. The farmer seems to have the idea that he will get more money by holding. He expects a farm bill after a while which may help him. Taking it all in all, we cannot believe there will be any rush of corn into the market at any time in the near future. The fact still remains that there is no corn of consequence in store at country elevators and the movement is dependent on when the farmer is making delivery. He is doing pretty well right now when the weather is good and suitable for shelling and hauling and when a rainy day strikes us it checks the arrivals almost immediately.

The oats business has been light with us. There seems to be no great big demand for them, although there is some demand for the better class of oats that is more or less urgent. The farmer seems to have fed a good deal of his last year's crop and shows no anxiety to sell oats and country dealers who usually have good stocks on hand to carry over have only about half of their usual amount. Owing to the fact that when the new crop came in that the farmer and country dealer were almost entirely bare of both oats and corn, it was necessary for him to use an extra amount of oats for feeding purposes. We believe that perhaps half of the crop grown last year has already been fed. If this is true it means a continuation of light movement and probably the holding of rather good prices.—*P. B. & C. C. Miles, Peoria, Ill., market letter of December 11.*

CASH SITUATION DULL IN DULUTH

The cash situation at Duluth has been rather dull for the past week. Fair interest in top quality grains but an especially poor demand for low grades. The rain and frost caught a very large portion of our crop last fall so as a result the buyers have been forced to take a much larger percentage of the low grades than in normal seasons. This naturally has had a very depressing effect.—*White Grain Company, Duluth, Minn., market letter of December 12.*

CHANGES IN MEMBERSHIP

Chicago.—The following memberships on the Board of Trade have been transferred: Harold N. Scott, Benj. L. Hargis, Estate of Paul Kuhn, Perry H. Kenly, Siegfried F. Mayer, Albert M. Adams, Estate of Adolph J. Lichstern, John H. Peel, John Allen Jones, William F. Burrows, Jr., Estate of

Edward S. Adams, Jerome B. Rockhill, John F. Jelke, John C. Evans, Robert Reilly, Estate of Alexander W. Thompson, Estate of Leslie F. Gates, Robert J. Koeppe, Theodore H. Mueller, Otis A. McFall, Frank W. Thomas, James P. Cooke, Estate of Aime F. Millet, Estate of Emil Newman, Oliver J. Martin, James J. Fones. The following were admitted to membership: Edward C. Warner, Jacob L. Replogle, Samuel A. Marx, Edward J. Dies, Leonard M. Spitzglass, Percy F. Brautigam, Banks B. Blackwell, John T. Lewellyn, Francis J. Cuneo, Ralph N. Ballou, Irving E. Marcus, Jack C. Rothschild, Ludwig D. Schreiber, John Robert Z. Murray, Walter A. Bledsoe, John T. Schenck, Harold F. Yegge, Edward C. Freutel, Alfred Ettlinger, William Eisenstadt, Joseph J. Rice, James J. Schmaltz, Herman H. Newberger, Willis F. George, James S. Gillick, William G. Gallagher. Reported by Secretary Fred H. Clutton.

Duluth.—Membership on the Board of Trade was granted L. G. Truesdale. T. G. Winter has withdrawn his membership. Reported by Secretary Charles F. MacDonald.

St. Louis.—The following transfers of memberships were made on the Merchants Exchange: A. C. Sartorius on transfer from J. E. Muckermann; J. C. McCourtney, from Louis H. Steinburg; Myron J. Stetler, from F. J. Oechener; J. L. Welsh, from H. T. Fowler; E. E. Krueger, from C. A. Talbot; George F. Preister, from Adolph Corneli; Charles L. Leiss, from V. C. Elmore; E. H. Wigand, from A. E. Mann.

PEORIA WHEAT MOVEMENT SLOW

Movement of old wheat is very light and the little there is moving is very poor quality, mostly not fit for milling. The growing crop of wheat is coming along very nicely and weather so far has been ideal. Unless something unforeseen happens, looks as though we will have a larger crop of winter wheat than we raised last year.

Receipts of corn here have been of fair volume, and the demand both for industries and export has been very good while the domestic trade in the East is nothing extra. We hope that the export demand continues, and that we will be able to market considerable that way, as we have plenty of it, and exportation of a good, round lot between now and spring, will have a tendency to keep corn from sagging to too low a price. Prices in this market are holding well in line with all other markets, and we look for the demand to continue good.

Receipts of oats have been light and the demand has been fair, and we notice that the visible supply which is not very big is decreasing right along. As feeding of this cereal on the farms is perhaps greater this year than any year in the history, we believe those who are looking for large movement of oats from the country later on will be disappointed. Prices of oats have held well in line with all other markets and a good part of the time oats have been selling to better advantage here than in other markets.—*Mueller Grain Company, Peoria, Ill., market letter of December 13.*

TERMINAL NOTES

The Portland office of the Ryer Grain Company of Seattle, Wash., has been closed.

Members of the Milwaukee Chamber of Commerce are asked to consider the advisability of the exchange handling stocks and bonds.

H. A. Butler is now a member of the Omaha (Neb.) School Board. Mr. Butler is associated with the Butler Welsh Grain Company.

John Luscombe, of Southworth & Co., Toledo, has been sending some interesting letters to the home office covering his trip through Europe.

George L. Stebbins is now registered on the Chicago Board of Trade as assistant secretary of the Cleveland Grain Company, Indianapolis.

Kenton D. Keilholtz, head of Southworth & Co., grain dealers of Toledo, Ohio, has been elected a director of the Lumberman's Savings Association.

The Bunge North American Grain Corporation of Buffalo, N. Y., has put Harry N. Hedges in charge

of its freight engagements. Mr. Hedges was connected with shipping and freight brokerage houses on the New York Produce Exchange for several years and later was with Caldwell & Co.

H. L. Hankinson & Co. are represented on the Chamber of Commerce, Minneapolis, Minn., by Thomas R. Barrett.

A rule providing for a minimum commission charge of \$5 per car on millfeeds and \$8 per car on grain consignments has been adopted by the Kansas City Board of Trade.

Eugene Smith, who was for a number of years secretary and building manager of the St. Louis Merchants Exchange, is now connected with F. D. Hirschberg & Co., insurance.

The Cleveland Grain & Milling Company, Cleveland and Indianapolis, has changed its name to the Cleveland Grain Company. There has been no change in its policies or personnel.

The office of James E. Bennett & Co., at Kansas City has been remodeled and a Trans-Lux machine for displaying Chicago grain and New York Stock Exchange prices has been installed.

The Archer-Daniels-Midland Company of Minneapolis, Minn., has notified the New York Stock Exchange of its intention to increase the common stock to 750,000 shares from 350,000.

A new company to manufacture Defiance spark plugs has recently been started at Toledo, Ohio, with Raymond P. Lipe as president. Mr. Lipe was formerly in the grain and hay business.

The Seattle Grain Exchange has equipped its trading floor with a loud speaker. Telephone calls to traders are announced over the floor, important grain news and introductions of visitors.

The traffic division of the Oklahoma City Chamber of Commerce is compiling a new shippers' guide giving complete data on dispatching exports. I. G. Bentley is secretary of the organization.

L. T. Phelps is again with the grain and feed business of the Johnson-Olson Company of Minneapolis. He was formerly associated with his father operating the pioneer firm of E. L. Phelps & Co.

Edmund Thomas is to make his home in Los Angeles, Calif. He was a member of the grain trade for years at Buffalo and was manager of the wheat department of the Lewis Grain Corporation.

Sears, Roebuck & Co. have leased for a long term of years the Grain Exchange Building at Oklahoma City, Okla., occupied largely by grain dealers. All tenants must find other quarters before January 15, 1929.

The cash grain department of D. E. Newhall, Inc., Buffalo, N. Y., is under the management of Albert A. Voss. Mr. Voss was formerly with the Export Elevator Company and the McConnell Grain Corporation, Buffalo.

William H. Day is now president of the National Industrial Traffic League. He is manager of the Transportation Bureau of the Boston Chamber of Commerce and was formerly president of the New England Traffic League.

A branch office has been opened in Concordia, Kan., by B. C. Christopher & Co., of Kansas City, Mo. Joe Jackson, formerly of Beloit, who has been with the company for eight years, will be one of the managers. M. S. Huff will also be in the Concordia office.

George H. Plant is now an honorary member of the St. Louis Merchants Exchange. He was president of the exchange in 1907. Three members of his family have been presidents of the exchange: George P. Plant, in 1869; George H., in 1907; and Samuel Plant in 1924.

J. M. Riebs, Jr., is chairman of the building committee of the Milwaukee Chamber of Commerce. Other members are H. M. Stratton, W. A. Hottensen, E. J. Furlong and Otto R. Sickert. The Exchange's lease on its present quarters expires in May 1931 and the Exchange may want to make a change then.

Serious thought is being given by the St. Louis Merchants Exchange to the advisability of estab-

lishing the trading in securities along with grain futures. The Board of Directors has appointed a committee consisting of Harry H. Langenburg, Fred B. Chamberlain and L. Ray Carter to go into the matter.

A resolution has been passed by members of the Kansas City Grain Club endorsing the establishment of a department for securities trading on the Kansas City Board of Trade. The Kansas City committee on securities trading is comprised of James N. Russell, C. P. Cauthorn, Kenneth G. Irons and J. K. Christopher.

A. L. Eberhart has resigned as vice-president of Cross, Roy, Eberhart & Harris, Inc. The name of the company was subsequently changed to Cross, Roy & Harris, Inc., with Albert E. Cross, president; Siebel C. Harris, vice-president; Ervin L. Roy, treasurer; Guy E. Warren, assistant treasurer; Edward L. Hicks, Jr., secretary.

A committee has been appointed at Wichita, Kan., to co-operate with the Government in adjusting the method of grading and inspecting wheat in the Southwest. The committee, named by W. H. Smith, president of the Wichita Board of Trade, is comprised of: W. H. McCullough, Kansas Milling Company; L. H. Powell, Wichita Terminal Elevator Company; I. H. Blood, Blood Grain Company.

Arrangements have been completed by the Seattle Merchants Exchange for the erection of an 18-story, \$3,500,000 exchange building, to be ready for occupancy by February 1, 1930. Various affiliated organizations of the Merchants Exchange, including the Seattle Grain Exchange, Stock Exchange, Produce Exchange, Clearing house and the like will be located there.

Due to the wrecking of the old Board of Trade Building, many of Chicago's grain firms have changed locations. The following were made this month: Uhlmann Grain Company to 538 S. Clark St.; Riordon, Martin & Co., 111 W. Jackson Blvd.; P. H. Schiffin & Co., Inc., 538 S. Clark St.; McKenna & Strasser, 538 S. Clark St.; George W. Beaven and Horace L. Wing, 332 S. LaSalle St.; E. W. Bailey & Co., Inc., 538 S. Clark St.; Carhart, Code, Harwood Company, 111 W. Jackson Blvd.; Walter Metcalfe, 332 S. LaSalle St.; Frank E. McDonald, 231 S. LaSalle St.; Robert P. Boylan, T. Frank Murphy, Peter J. Brennan, Timothy J. Kiley, 111 W. Jackson Blvd.

The Nominating Committee on the Chicago Board of Trade has placed the names of the following before members of the board for election in January: For president, Samuel P. Arnot; vice-president, C. V. Essroger; Board of Directors, Fred Uhlmann, P. A. Crane, A. W. Mansfield, George H. Tanner, Frank E. Alstrin, and Luther S. Dickey. Other committees nominated include: Committee on Appeals, A. B. Lord, K. V. R. Nicol, A. A. Meyer, Frank J. Bittel, B. B. Denniston; Committee on Arbitration: H. W. Batterman, Frank Haines, P. A. Copenhaver, Harry S. Klein, W. C. Bliss; Nominating Committee: Lester N. Perrin, W. E. Hudson, Charles H. Requa, T. E. Cunningham, E. H. Bagley.

HEDGES USED BY 44 PER CENT OF CO-OP FIRMS

Practically all the grain associations reporting to the Department of Agriculture are farmer-owned but they vary as to other co-operative principles and practices. About 69 per cent, says the Department, use the one-vote-per-member principle; about 77 per cent limit the amount of stock which may be owned by any one member; about 62 per cent limit the per cent of dividends payable upon capital stock; nearly 73 per cent pay patronage dividends to stockholders, but only about 15 per cent reflect full patronage dividends to non-stockholders as well as stockholders.

With regard to operating practices, about 44 per cent of those reporting use futures for hedging purposes; 45 per cent reported cleaning of commercial grain, and 32 per cent cleaned seed grain for farmers. Nearly 28 per cent practiced mixing to some extent. Practically one-half store grain for farmers,

but only about 11 per cent use terminal grain storage facilities. For all areas, 44.3 per cent of the grain handled was sold on consignment, 38 per cent "on track", 17 per cent "to arrive", and the balance was disposed of as local sales.

More than 83 per cent of the group reporting showed financial surpluses at the close of the 1926-27 season. The total net surplus of all associations after deducting deficits reported was estimated to be about \$27,000,000. About 60 per cent of the group paid stock dividends totaling about \$3,000,000, while 24 per cent paid patronage dividends of more than \$4,000,000.

Good management, loyalty of members, and pursuance of careful operating policies, were given by elevator officials as the principal reasons for favorable financial condition, while lack of volume, poor management, and unsafe business practices, were given as the most common causes of unfavorable financial condition.

CHARLES B. RILEY DIES

By HOWARD M. RUDEAUX

Charles B. Riley, secretary of the Indiana Grain Dealers Association and the Indiana Millers Association, died at the Methodist Hospital, Indianapolis, December 10, following a week's illness with in-



THE LATE CHARLES B. RILEY

fluenza. Mr. Riley was 77 years old. He was a member of Indiana's first railroad commission in the years 1907 to 1911, and was the author of the state's first railroad statute. He was born and reared in Decatur County, Indiana. Like so many other ambitious young men, he early formed a purpose to enter the profession of the law, and devoted about three years to study with the firm of C. & J. K. Ewing, at Greensburg. But attractive opportunity for engaging in the grain business caused him to abandon the law and transfer his residence to Rushville, which is still his home and has been continuously with the exception of a few years spent in Kansas and Colorado, and 22 months in the United States Government service, 16 of which were in Cuba during the Spanish-American War.

In the grain and general shipping business, Mr. Riley won a splendid success and on account of his experience along these lines and his high qualifications for the position otherwise, he was elected in January, 1904, secretary of the Indiana Grain Dealers Association, which office he was holding at the time of his death. He directed and inaugurated a campaign for the procurement of some legislation for the protection of the shipping interests of the state, and the correction of certain abuses from which shippers had been suffering at the hands of transportation companies. As a result of his efforts, many individual shippers and some 30 commercial organizations of the state, with many thousands of members, were interested

in the movement which finally resulted in the enactment by the General Assembly of 1905 of the Newhouse Railroad Commission Law, by practically a unanimous vote of both Senate and House. The present Indiana Railroad Commission came into existence pursuant to the provisions of this measure.

Mr. Riley was selected by the Commission as its secretary, and the choice was recognized by the shippers all over the state as a well-earned compliment to him and was fully appreciated by them. Mr. Riley's capacity for hard work, his practical knowledge and experience as a business man and shipper, as well as his fair and conservative views as to the rights of both the carrier and shipper were a guarantee of faithful and efficient service as secretary of the commission.

He was a member of the Rotary Club and the Broadway Methodist Church, and a director of the Washington Bank & Trust Company. Surviving are the widow, Mrs. Ida Riley; two daughters, Mrs. T. L. Johnson, St. Louis, and Mrs. P. E. Lee, Rochester, N. Y., and one sister, Mrs. Lydia Rouze, Boulder, Colo.

ECONOMICS BUREAU AIDS FARMERS

Marked reorganization of farm production plans and the adjustment of the marketing system to changing economic conditions during the past year are reported by Nils A. Olsen, chief of the Bureau of Agricultural Economics, in his annual report to the Secretary of Agriculture. "Many sections have reorganized their farm activities on a more profitable basis as a result of recommendations made by the bureau," Mr. Olsen says. "State and local agricultural workers have joined the bureau in this work of assisting farmers to find the most profitable combination of farm enterprises under varying conditions."

A national program for farm production was unknown six years ago. Today, the annual outlook reports prepared by the bureau in co-operation with representatives of the states provide for farmers a plan of procedure of nation-wide application. Greater effort is being made by the bureau to improve information on domestic and foreign markets, services in standardization, grading, packing, and other farm practices to help farmers fill out their programs of production and marketing to meet changing conditions in the best and most effective manner. Efforts to improve the quality of products through standardization and grading are an important phase of the bureau's work relating to marketing.

The bureau's study of the combine-harvester has shown that these machines save labor, eliminate transient labor, permit the early clearing of fields for tillage operations, distribute the straw on the land, and get grain to market earlier. The drawbacks may be overcome or lessened, according to the report. Extensive research was undertaken by the bureau during the year to determine farm management practices which are most effective in combating the European corn borer. It has been found that the control practices which are necessary involve substantial changes in the usual methods of handling corn on corn belt farms, particularly with respect to the disposal of cornstalks, stubble, or other refuse in cornfields and the preparation of cornland for subsequent crops.

GRAIN FUTURES MARKET IN PARIS

A grain futures market was opened in the Bourse de Commerce de Paris this season, which will greatly facilitate, it is believed, transactions in grain and increase the trade in this commodity.

Quotations will be made on contracts to be executed as follows: During October, execution of one quarter of the contracts during each month for four successive months, beginning in November or in January.

NEBRASKA ELEVATOR HAS
LUMBER TRADE

More and more the elevator which operates with sidelines is becoming the rule rather than the exception. Frequently, it has been said, and those who have had practical experience in the matter agree, that the factors in the business other than grain represent a decidedly important factor in maintaining a more or less assured profit. They are not generally subject to any appreciable degree of price fluctuation, and usually involve but a small amount of increase in overhead and general operating expenses. The facilities already at hand for the handling of an elevator's regular grain trade only require a limited amount of alteration or augmenting to fit the concern for handling ordinary sidelines.

The E. S. Young Lumber Company, of Lyman, Neb., can scarcely be said to regard lumber as a sideline, but it is an article merchandised in addition to grain which assists in rounding out the company's possibilities. The concern commenced business in 1921. Ever since that time the main part of the grain business for the E. S. Young Lumber Company has been feeding. The old house is still used, though it long ago was found to be too small for the handling of the entire bulk. It now serves as a storage unit only, and the grain shipping is handled in the new unit.

The main building of the company measures 30 by 36 feet and has a height of 76 feet. It is situated on the right of way of the Union Pacific, and has exceedingly good transportation facilities.

The house is of crib construction, and has a



ELEVATOR OF THE E. S. YOUNG LUMBER COMPANY, LYMAN, NEB.

capacity of 30,000 bushels. This storage has been divided into 20 units. The receiving capacity is 2,400 bushels and the shipping capacity is 1,800 bushels. One grain cleaner has been provided, and by means of this it is possible to clean 350 bushels per hour.

A feed grinder was supplied by the Barnard & Leas Manufacturing Company, Moline, Ill. The power of the elevator is electric, and four motors have been installed, with an aggregate of 30½ horsepower. Worm gear and belt drives are used; and there is push button control. Modern weighing facilities have been provided in the house.

Wheat, corn, barley and rye are the principal grains handled; and in addition to an extensive grain business, the company also handles a large quantity of lumber and coal, as well as feed, which gives a diversification that overcomes any slumps which might otherwise be attributable to seasonal limitations.

THE GRAIN MARKET SITUATION

By G. A. COLLIER

Grain, Hay and Feed Market News Service, United States Bureau of Agricultural Economics

The grain market held generally steady during the last half of November and the fore part of December with practically no important changes in the general situation. Mill demand was sufficiently active to maintain the domestic wheat market practically unchanged throughout the month despite the weaker markets at Liverpool and Buenos Aires, which were apparently reflecting the increased offerings of wheat for early ship-

ment from the Southern Hemisphere. An active demand for corn, together with export buying of moderate volume, held corn prices steady in the face of increased offerings. The oats market developed some independent strength as a result of small offerings and decreasing supplies. The rye market continued weak. Export demand was of limited volume and domestic buying was hardly sufficient to maintain prices. The barley market was generally steady, reflecting the strength in the market for other feed grains.

The world's wheat market situation has not changed materially during the past month. Continued heavy marketings of Canadian wheat and record North American stocks, together with the approaching movement of Southern Hemisphere wheat, continues to be the principal weakening factor in the market. This is offset somewhat, however, by prospects of increased takings by European buyers, particularly of low grade wheats, to supplement the short crop of feed grains. Restrictions on mill extractions have been removed in some European countries but have been increased in Russia, where mills are now required to make a 90 per cent extraction. About 328,000,000 bushels of the Canadian crop had been marketed to the first of December. Market stocks, however, had been increased to nearly 190,000,000 bushels and, together with United States grain in store, increased the North American stocks of wheat in store to about 330,000,000 bushels, or about 120,000,000 bushels more than a year ago.

Weather conditions in the Southern Hemisphere have been generally favorable for maturing and harvesting of the wheat crop and offerings from both Australia and Argentina are increasing. India is reported to be taking some Australian wheat, which has offset somewhat the influence of the new crop offerings. Argentina, on the other hand, is reported to be pressing sales of wheat with 63-pound Rosa Fe for December shipment, quoted December 7 in Liverpool at \$1.27¾, compared with \$1.30¾ for No. 4 Manitoba and \$1.17¾ for No. 5 Manitoba. Australian wheat for December shipment was being offered at \$1.44¼. Despite the lower quotations on foreign wheats, native wheat in most European markets held steady. On December 7 native wheat at Hamburg was quoted at \$1.46½, or practically the same price as at the middle of November. Native wheat at Paris was quoted at \$1.59, Milan, Italy, \$1.57½, and Copenhagen, Denmark, \$1.20½.

CASH WHEAT PREMIUMS FAIRLY STEADY

Cash wheat continues to sell at fairly steady premiums in the domestic markets but demand at the first of the month was only moderately active. The movement of Spring wheat increased materially during the last week in November and the first week in December. Mills are still furnishing the most important outlet for United States wheat, although some White wheats from the Pacific Northwest, certain classes of Durum and some of the lower grades of Hard Winter wheat are being exported. Some increase in shipping instructions for flour have been reported by southwestern mills and premiums for sound milling Hard Winter wheat have held practically unchanged but the lower grades and some damaged wheat are selling at greater discounts. No. 2 Hard Winter 12 per cent protein was quoted at Kansas City December 7 at 3-7 cents over the December price of \$1.08¼; 12½ per cent 5-9 cents; and 13 per cent 6-12 cents over the December price. A cargo of No. 2 Hard Winter was reported sold at the Gulf during the week at \$1.24¾.

Soft Winter wheat continues to sell at material premiums over other classes but mills are apparently turning more to the cheaper grades of Hard Winter because of the wide discount at which this wheat can be purchased. No. 2 Soft Red Winter was quoted December 7 at St. Louis at \$1.41-1.47 compared with \$1.19½ for No. 1 Hard Winter. A year ago No. 2 Soft Red Winter was quoted at St. Louis at \$1.45-1.45½ while No. 2 Hard Winter was selling at Kansas City at \$1.30-1.35. The relatively higher prices of Hard Winter last season increased the demand in the central western mar-

kets for White wheats from the Pacific Northwest. Some of this wheat moved eastward again early this season, but during the past month prices have been out of line for eastward movement of this wheat and the White wheats in Washington and Oregon have been taken for export or by local mills with export business. Soft White wheat was quoted December 7 at Portland at \$1.19 with Western White selling at \$1.18 and Hard Winter at around \$1.13-1.14. The short wheat crop in China has increased the demand for wheat and flour in the Pacific Coast markets. Japanese mills which have been furnishing flour to China are reported to have taken nearly 1,000,000 bushels more wheat during October than for the same period last season. About a third of these shipments were from the United States.

With the receipts of Spring wheat at Minneapolis about twice as large as last season, the cash market weakened slightly during the early part of December, particularly for high protein types. Twelve per cent protein No. 1 Dark Northern was selling in that market December 7 at 2-5 cents over the December price of \$1.10; 13 per cent 8-12 cents over and 14 per cent 15-20 cents over the December price. Premiums at Duluth were reduced even more than at Minneapolis. The last boats of the season were loaded and shipped from Duluth during the first week in December, thus ending eastward shipments this fall and eliminating a demand which has been a strengthening factor in that market.

Durum wheat has continued in slack demand but premiums for the best milling qualities were about unchanged because of the small offerings of these types. Marketings of Durum wheat at Duluth and Minneapolis have been around 9,000,000 bushels larger than for the corresponding period last season and account for practically all the increase in this season's crop. Not all of this increase, however, has passed into consuming channels, since stocks of Durum wheat in store in these markets have shown an increase of about 3,000,000 bushels over the accumulations for the same period last season. The remaining increase in the marketings at Duluth is largely accounted for in heavier shipments via the lakes to Buffalo and to Canadian ports. Lake shipments from Duluth to Buffalo for the period August 1 to December 1 totaled a little over 9,400,000 bushels compared with about 6,325,000 bushels last season. Shipments to Canada totaled 23,380,000 bushels compared with about 22,000,000 bushels last season. It would appear, therefore, that possibly a little more Durum wheat has passed into consuming channels than to this date a year ago.

Inspections of all classes of Durum wheat during the period August through October show a material increase in the receipts of Durum and Red Durum for this period and relatively small arrivals of Amber Durum. This scarcity of Amber Durum of good milling quality has resulted in increased premiums for this class of wheat. On the other hand, the large offerings of Durum and Red Durum have placed prices of these classes upon a feed basis and larger amounts are being fed or used for feed mixtures. At the close of the market December 7 No. 1 Amber Durum or No. 1 Mixed Durum of good milling color was quoted at Minneapolis at 8-20 cents over the Duluth December price of 94 cents. No. 1 Amber at Duluth was quoted at 2-20 cents over the December price.

The rye market ruled generally weak during the past month, although prices held generally unchanged. Export demand has continued dull notwithstanding the short crop in Europe and exports to the first of December were less than half those a year ago and totaled only a little over 7,000,000 bushels. Mills have been the principal buyers and all offerings of milling quality have been well taken. No. 2 rye was selling December 7 at Minneapolis at 97 cents-\$1.03½ and at Chicago at about \$1.05 per bushel. The slow demand has caused a steady increase in market stocks which now total about 5,630,000 bushels, or twice the amount in store at this time last year.

The corn market has maintained a steady tone

December 15, 1928

with demand sufficiently active to absorb the current receipts, which have been fairly large. As much corn had been received at the principal markets at the close of the first week in December as had arrived to the middle of January last year and the season before. Because of the depleted stocks at the beginning of the season, however, this large movement has moved readily into consuming channels and prices in the central western markets at this writing (December 10) are only 2-3 cents per bushel lower than a year ago. Market stocks are still relatively small, totaling only a little over 6,000,000 bushels at the first of December. They have been increasing, however, at a moderate rate since the first of November.

Short crops of feed grains in Europe have increased the export demand for United States corn and exports recently have shown some increase. Nearly 1,000,000 bushels were reported exported during the week ending December 1. Europeans are still in need of considerable corn but the relative cheapness of barley and oats is causing buyers to turn more to these grains and may somewhat restrict the takings of United States corn. Supplies of old corn in Argentina are small but old crop grain for prompt shipment was quoted c. i. f. England at the close of the week at about \$1.21 per bushel while new corn, the harvesting of which will begin in March, was quoted at \$1.08 per bushel. United States corn was being quoted for export to Europe at 97½ cents f. o. b. New York and 93¼ cents f. o. b. track at Galveston for No. 2 corn. While trade reports state that some European buyers have been offering to sell some of their contracts for January shipment, export bids were advanced about 2 cents per bushel in the southwestern markets during the first week in December.

Industries and shippers continue to be the principal buyers of corn in the domestic markets. Receipts have increased recently but offerings to arrive are only of moderate volume. Farmers in the Southwest were reported to be marketing slowly and shippers in the Chicago territory were also selling slowly. Dealers at Kansas City were bidding about ½ cent under the Kansas City December price on December 7 for No. 2 corn for 10 days' shipment. Chicago buyers were bidding 2½ cents under the Chicago December price for No. 3 Mixed corn to arrive by December 15. No. 3 Yellow corn was being quoted at 80-83 cents per bushel in the principal distributing markets of the Central West.

The oats market has developed independent strength largely because of the small offerings and decreasing supplies. Stocks in store in the markets are being steadily reduced and at the first of December totaled only a little over 15,000,000 bushels compared with nearly 25,000,000 bushels in store at the corresponding time last season, when the crop was small. The scarcity of old corn during August, September and October caused increased feeding of oats and the high prices of mill feeds during the fall have also tended to increase the farm consumption of this grain, which is being ground with barley for dairy feed. Good quality oats are in good demand and prices of oats for December delivery have advanced about 4 cents per bushel during the past month and at this writing are only about 5 cents cheaper than a year ago. No. 3 White oats were quoted on December 7 at Chicago at 46½-48½ cents, Minneapolis 43½-44½ cents and Kansas City 46-47 cents per bushel. The export demand this season has been larger than last year, about 7,250,000 bushels having gone out from July 1 to December 1 compared with around 3,500,000 bushels last year.

The barley market held steady during the past month with prices about unchanged. Considerable barley is still being taken for export although the bulk of North American shipments during the past month have consisted of Canadian barley, notwithstanding United States barley was being quoted below Canadian barley in European markets. United States No. 2 barley was quoted in Liverpool December 7 at 82¼ cents per bushel compared with 93 cents for No. 3 Canadian. No. 2

barley for export was quoted f. o. b. New York at 79 cents per bushel. Exports from July 1 to the first of December totaled about 39,500,000 bushels compared with around 26,800,000 bushels for the corresponding period last season.

Domestic demand for barley has been good for best malting types but feeding grades have been rather slow sale. However, the high prices of millfeeds and the steady markets for other feed grains have tended to increase the use of feed barley this season. Best malting types of barley were quoted December 7 at Minneapolis at 66-68 cents and at Chicago at 68-73 cents per bushel.

MONTANA TAKES TWO CHAMPIONSHIPS

Montana growers scored heavily at the hay and grain show of the International Livestock Exposition the first week of December, at Union Stock Yards, Chicago. C. Edson Smith of Corvallis, Mont., won the wheat title, with Herman Trelle of Wembley, Peace River County, Alta., Canada, as reserve champion. C. Ivan Gustafson, Victor, Mont., took the oats championship, with J. F. Meinzer, La Jara, Colo., as runner-up.

Mr. Smith, when he won this year, was repeating what had happened last year—when he took the title from Mr. Trelle, its previous holder. The finish this year was the same as last year: Mr. Smith first with Hard Red Winter wheat and Mr. Trelle with Hard Red Spring wheat. Mr. Smith is 56 years old and the oldest grain exhibitor at the show, appearing for his sixth consecutive year at the present showing. Although born in Iowa, he has been farming in Montana for over 30 years.

The 1928 corn king was Rome Workman, he having won with a 10-ear sample of Ried's Yellow Dent corn, grown on his farm near Waverly, Sangamon County, Ill. He raises 100 bushels of corn to the acre, and his prize ears were 10¼ inches long, weighing more than a pound. They came from a 30-acre field. The reserve championship in corn was won by Fred L. Harting, Friendship, Ind., and Ralph Troyer, 15-year-old son of C. E. Troyer, who was the 1927 corn king, won the junior championship.

Twenty-two different crop varieties were shown by Canadian entries. Among the exhibitors was H. G. L. Strange, an American who homesteaded in Canada, now resident of Penn, Alta., who won the 1923 wheat championship.

NEW DEVELOPMENTS IN NEBRASKA

A new variety of barley is being recommended by the Nebraska State Agricultural College. It is a high yielding, smooth bearded grain and is called Comfort. It is so named because of its smooth beards, and yields about seven bushels more an acre than common barley. T. A. Kiesselbach, head of the agronomy experimental division, considers this one of the most important small grain seed developments in recent years.

The college has also announced the development of a superior Hard Winter seed wheat. It has been developed past the experimental stage, but will not be ready for distribution to growers for two years more at least.

THE HESSIAN FLY IN CALIFORNIA

California wheat growers in some sections and in some seasons are troubled by the activities of the Hessian fly, which also injures the important barley crop to some degree. "The most practical measures for control of the Hessian fly in California," writes C. M. Packard in Technical Bulletin 81-T, just published by the United States Department of Agriculture, "are practices already in common use for other reasons. These are rotation of crops, early plantings, and the stimulation of rapid vigorous growth."

Early planting as advised for California growers is the reverse of the practice recommended in the

Winter wheat belt, where it has proved preferable to delay planting until after the main autumn flight of the flies. In California the flies do not, as a rule, emerge until late winter and early spring, and the principal injury to the wheat takes place in March, April and May.

A MODERN MINNESOTA COUNTRY ELEVATOR

A correspondent of this journal who has spent a great deal of time traveling up and down the concrete highways of this country from the Middle West states to the Pacific Coast, remarked after some months of this kind of adventure, "Elevators



THE NATIONAL ELEVATOR, FELTON, MINN.

are a lot like people. At first glance most of them seem very much alike, but upon better acquaintance many little differences can be distinguished and you find that after all the seeming similarity was only external." This fact becomes more obvious every day to anyone who examines different grain storage units; and the divergence in types becomes all the more marked as one gets acquainted with the many houses which make up a part of the marketing machinery of the vast grain trade.



WAREHOUSE OF NATIONAL ELEVATOR COMPANY

Variations in architecture are about the only noticeable differences, when one confines opinion to the exterior of the houses, though even two houses which resemble each other in structure will demonstrate differences in the care that is being taken of the houses or the surrounding grounds. But no matter how nearly alike two houses seem when viewed from the outside by the uncritical eye, they will always show marked differences within—and it will not necessarily require a "critical" eye to detect such differences.

Among the modern houses which have some claim for attention in the Northwest is that of the National Elevator Company, in Felton, Minn. The elevator is shown clearly in the illustration above, which was reproduced from a small photograph; and some of the warehouses operated as units of the business are shown in the other illustration on this page.

The elevator is a new one, having been built as shortly ago as 1927, and it has a capacity of 32,000 bushels of grain. It is electrically equipped and furnished with air dumps.

NEWS LETTERS

BUFFALO

ELMER M. HILL CORRESPONDENT

BUFFALO'S storage grain fleet this winter will number approximately 100 vessels with an aggregate cargo of more than 30,000,000 bushels. Last winter 81 boats holding 2,000,000 bushels of grain were in the Buffalo Harbor. Up to the early part of December 76 boats had arrived with storage cargoes and more were being loaded with storage grain at the head of Lake Superior for their final trip down the Great Lakes to Buffalo.

Grain from the twin ports at the Canadian head of the Lakes—Fort William and Port Arthur—to unload at Buffalo was being offered early this month at 6½ cents while the prevailing rate on winter storage cargoes at Buffalo was 7 cents. During the first week of the month a large number of boats were placed for loading on this basis. Some boats also are being chartered to load at Lake Superior ports this month for delivery at Buffalo after the opening of navigation next spring.

The new Hecker Grain Elevator at Ohio and St. Clair Streets, with a storage capacity of 3,000,000 bushels, owned by the Hecker Elevator Company, Inc., is now in operation. The opening of the new elevator brings Buffalo's commercial or public storage capacity up to approximately 30,000,000 bushels. The steamer *J. B. Johns*, carrying 115,000 bushels of wheat and corn, was the first boat to have its cargo unloaded at the new Hecker plant. The total public and private storage capacity in Buffalo is now about 43,000,000 bushels. The new Hecker Elevator is of concrete construction and is equipped with two marine legs, a drier, cleaner and clipper and has a total dockage space of 1,200 to 1,400 feet. Elevating capacity is estimated at 50,000 bushels an hour and car loading facilities about the same. Charles H. Williamson, manager of the new elevator, who for many years has been prominently identified with the grain and elevator interests of Buffalo, says the machinery and equipment of the house met all requirements. He says the elevator will be operated as a commercial house without private connections. Grain cargoes now are being handled daily at the new elevator.

When the New York State Barge Canal closed for the 1928 season, some new records were established and predictions were freely made that next year would find the canal assuming the importance that it was intended for at the start. There was a big increase in grain moved over the state waterway to the Atlantic Seaboard during the season. Over 41,000,000 bushels of grain were shipped from Buffalo to New York over the canal, an increase of 10,000,000 bushels over the 1927 season. Operators received an average of 6¼ cents for the season compared with less than a 5-cent average during 1927. Twenty new barges were added to the fleet on the canal during the year. Delays to navigation were very slight.

The unfavorable weather late in November caused considerable delay to the Great Lakes grain fleet with the result that many boats scheduled to reach Lake Superior shipping ports before the advance in marine insurance rates became effective were forced to take cargoes at high premiums. The available supply of tonnage was curtailed to such an extent that shippers had to bid up the rates from 3¾ to 6 cents.

Buffalo-made food products will do their bit to make Commander Byrd's Antarctic expedition successful. The Hecker H-O Company, of Buffalo, furnished a large supply of cereals to the stores of the Byrd expedition. The Buffalo product was selected from a long list of oatmeal samples submitted by various manufacturers to the supply officers in charge of the cruise.

Terminal elevators at Buffalo have been receiving a larger percentage of the shipments from Fort

William and Port Arthur at the Canadian head of Lake Superior this fall than in many years. The lake movement in November from these two ports far exceeded all previous records. Included in the November shipments were 35,000,000 bushels of Canadian wheat which will remain afloat during the winter at Montreal, Buffalo and other eastern ports. This latter total will be increased considerably by December shipments. Up to the first of December almost 300,000,000 bushels of wheat were shipped to the terminals at Fort William and Port Arthur. Shipments from the head of the lakes last month established a new record of 110,727,120 net bushels of all grains. Receipts at Fort William and Port Arthur of all grains for the 11 months aggregated 362,641,945 net bushels. This exceeded the figures of any previous calendar year by approximately 40,000,000 bushels.

ST. LOUIS

FAIRMOUNT CORRESPONDENT

THE past year has been a very excellent one for the grain dealers in this market. In fact, the year 1928 has been the largest year in the grain business on the St. Louis Merchants Exchange and much larger volume of grain being handled through this terminal than ever before, being somewhat larger than 1921, which was the record year. The movement at this time is very liberal and the prospects are that the year will continue in the same ratio as in the previous months. The St. Louis market is attracting considerable outside interest which redounds to the benefit of the St. Louis grain merchants.

The following transfers of memberships were made during the past 30 days: A. C. Sartorius, representing the Polar Wave Ice & Fuel Company of this city, on transfer from J. E. Muckermann; Elmer A. Schwarz of the Schwarz Grain Company, on transfer from L. H. Lloyd; J. C. McCourtney, representing Stotler Grain Company, Streeter, Ill., on transfer from F. J. Oechener; James Leroy Welsh, representing Butler Welsh Grain Company of Omaha, Neb., on transfer from H. T. Fowler; E. E. Krueger, representing Knowlton Grain Company, on transfer from O. A. Talbot; George F. Preister, representing Reinert Preister Elevator Company, on transfer from Adolph Corneli; Charles L. Leiss representing Decatur Grain & Elevator Company, Decatur, Ill., on transfer from V. C. Elmore; and E. H. Wigand, representing L. & N. Railroad Company, on transfer from A. E. Mann.

The Board of Directors voted to pay \$100 for memberships, dues for 1928, paid or unpaid. The following memberships were offered for cancellation and redemptions on November 21: V. C. Elmore, Ashland, Ill.; J. H. Lauderman, W. H. Lauderman and H. B. Lauderman, St. Louis, Mo.; Frank J. Ochsner, St. Louis, Mo.; Fred Schlafly of Carlisle, Ill.; William L. Burton, St. Louis, Mo.; Albert A. Driemeyer, Pickneyville, Ill.; John H. Lloyd, Springfield, Ill.

On the day following the posting of the above memberships for cancellation, a demand for the memberships became acute which resulted in all the memberships that were offered for cancellation and redemption being withdrawn. The first sales of memberships brought around \$250, the last sale made a day or so ago was for \$942.50. This demand came from various sources who believe that Merchants Exchange memberships were more valuable than supposed. There is a good demand from the outside and from local trade who are broadening their business buying new memberships and undoubtedly we will see continued strong if not higher values. Also due to the fact that it is contemplated that the Merchants Exchange will enter into the stock trade, which would necessarily mean a greater volume of business and a demand for more memberships. It also has been suggested that the Merchants Exchange issue a limited number of associate memberships which would permit the holder to enjoy the floor privileges with no right to trade

in his own name. It is believed that many would enter the exchange on the associate memberships and place their orders through regular members.

A. T. Leonhardt of the Saxony Mills Company; W. J. Niergarth of the Marshall Hall Grain Corporation; W. H. Toberman, of the Toberman Grain Company; G. A. Vininga, of the Vininga Newell Grain Company; and Herman A. Von Rump of the Dixie Mills Company, have been appointed by the president of the Merchants Exchange as a Nominating Committee to select candidates for the ensuing year. The following nominations will be made: President, first vice-president, second vice-president, seven directors, five to be elected, five on the Arbitration committee and nine on the Committee of Appeals. They are holding two open sessions so that suggestions may be made by the membership.

Knight, Dysart & Gamble, a stock exchange firm of this city, have opened a branch office at 209 Merchants Exchange and have purchased a membership under the name of Clarence O. Gamble. This is the first move of interesting the trade in the Merchants Exchange in stock and securities and it is hoped that we will now see an increased business in that line.

The Merchants Exchange weighing and sampling department for the first time in years has shown a profit. Previous years this department has been conducted at a loss to the Merchants Exchange, but the large volume of business and the excellent handling of the business of the Weighing and Sampling Committee has resulted in a good profit for the year. This has been largely due to good business judgment of Louis F. Schults, chairman of the committee, and R. R. DeArmond, supervisor, with the able assistance of the members of the committee.

Frank M. Ward, traveling representative of the Martin Grain Company, was a visitor on the Merchants Exchange on November 19. It is the first time he has been in St. Louis for over a year.

J. C. C. Waldeck, founder of the Waldeck Packing Company, of this city died at 2.00 p. m. December 6 at his home, from a heart attack which he suffered last Saturday. He was 74 years old. He was born at Alsfeld, Ober-Hessen, Germany, on December 20, 1853. Mr. Waldeck came to the United States at the youthful age of 14 years. He entered the employ of Conrad Breidenbach, a pioneer pork packer of this city and during his employment became well acquainted with the packing business. He was a thirty-third degree Scottish Rite Mason. He was active in club circles, being a Knight Templar, a member of the Missouri Athletic Association, Sunset Hill Country Club and the Rotary Club, and he was also an old member of the St. Louis Merchants Exchange, serving as a director of the exchange at one time. He is survived by his widow, Mrs. Ida B. Waldeck, a son, Victor Waldeck of Hayfield, Iowa, and four daughters, Miss Gussie Waldeck, Mrs. William C. Waldeck, Mrs. H. C. Henger and Mrs. Wendle Berry.

LOUISVILLE

A. W. WILLIAMS - CORRESPONDENT

A FAIR demand for grain and feed has marked the closing weeks of the year, and movement of dairy feeds has been showing improvement since cold weather seared central Kentucky pastures. Hay demand has been very fair, but could be a lot better. Prices as a whole are fairly steady.

Feed and grain men are watching with considerable interest the rapid development of Kentucky into a dairy product state. Several counties in the state have ridded themselves of scrub bull stock, and are going in for good cattle. At Maysville, Ky., the Carnation Milk Company is completing a new milk plant, and there have been several milk plants, and many cream plants established in the state. Armour & Co. have just announced contracts

placed for cheese plants at Springfield and Campbellsville, Ky., to be in operation early in 1929, and there are more butter plants. Armour & Co. are anxious to see more cheese plants, as the company prefers to job such products to manufacturing them. One new cheese plant is now in operation at Lawrenceburg.

It is claimed by promoters of dairying that Kentucky has the grass and water, and that this far South there is grass over more months of the year, resulting in cheaper feeding and better dairy product. Extension of cheese making has gone into Tennessee, Alabama, Mississippi and other southern states.

Bankers of the state are doing a great deal toward development of cattle, having run a livestock special through the state last summer, and having aided farmers in financing purchase of better cattle. The sheep industry is also making greater progress, and will show still greater progress if dog regulations are ever properly maintained.

The horse breeding industry in Kentucky is going ahead well at this time, due to extension of horse racing to many additional states, and creation of greater demand for thoroughbreds, there now being more brood mares and stallions in central Kentucky than at any previous time in many years, as the breeders have no difficulty in selling likely looking youngsters.

The fall race meeting at Louisville didn't create very much business for the hay, grain and feed dealers, as the meeting at Louisville was for but one week, starting November 24, and ending December 1. However, there are a good many horses being wintered at the barns of the two local tracks.

Corn is coming in this season in very excellent shape, although the handlers claim that it contains more moisture now than it did in October. However, it is believed that in from 30 to 60 days it will be in good shape for movement without drying, as colder weather is being experienced, although it hasn't been very windy. Not much corn is being hauled in Kentucky right now, in spite of the fact that roads are good, due to the fact that farmers are busy hauling their tobacco, which is of fine quality and bringing the best prices that have been paid in several years.

The Kentucky Public Elevator Company reports that it has been quite busy in its corn drying department, but that movements have eased a little, as daily handlings are running light for the time being. The company is holding nearly 500,000 bushels of grain for customers, including 45,000 of corn, 143,000 of wheat, 35,000 of rye, and 250,000 of oats.

It is reported that mills are not buying much Soft wheat just now as Soft Winter wheat is too great a spread over Hard or Spring and it is resulting in the Soft Winter miller meeting with stiffer competition from blended and straight grades of Hard or Spring wheat flour.

Ed Scherer, Bingham Hewett Grain Company, remarked that while business was a trifle quiet, it was a little better than it had been, and that the steadiness of the markets was favorable.

It has been pointed out that on account of the wild New York stock market the gamblers have been too busy with other lines to worry much with grain corn and similar commodities, which probably has been very good for the industry, as bull movements in grain would have scared everyone off.

Harry Volz, of the house of S. Zorn & Co., was re-elected to the Board of Aldermen at the November election, and continues quite active in politics, although he is no longer president of the board, or acting mayor.

If the State Tax Commission continues to shove up licenses on motor trucks, the heavy draft horse is likely to come back again. The Kentucky Motor Truck Club, composed of owners and dealers, has arranged to go into the courts to battle the State Tax Commission, which has issued orders to the county clerks to increase the manufacturers' capacity ratings of all trucks over one ton, by from one-half ton to as much as four tons, which would increase the license costs on trucks from \$15 to \$180, and make licenses cost from \$70 to \$510, figuring 1½ ton to 12 ton, which according to the manufacturers' ratings are one ton to eight tons.

It is claimed that Kentucky is the only state in the Union which has seen fit to question the capacities for loads as outlined by the manufacturers, who certainly know how much a truck is designed to carry, and what constitutes an overload. It is really foolish to figure an eight-ton truck as a 12-ton truck.

Cal T. Roszell, feed and grain dealer, of Lexington, Ky., accidentally shot himself in his office, 134 McDowell Road, on November 28, while trying to load a 22 calibre pistol to shoot rats on the company yard. Mr. Roszell, who lost his right hand several years ago in a feed mill accident at the

plant, was holding the gun under his right arm and loading it with his left hand, when it dropped to the floor and went off, the shot missing his heart but penetrating a lung, and nearly hitting the bookkeeper who was standing by his side.

Brent & Co., grain, feed and seed dealers of Paris, Ky., escaped a safe robbery on December 2, account of young Ford Brent, Jr., home from college for the Thanksgiving holidays, noticing that the office light was out when he garaged a car about 8 o'clock in the evening. He started to enter the office to turn on the light and found that the door was blocked from the inside. He called his father from a nearby phone, and the latter notified the police. Two men ran from the office and escaped before the police arrived. The safe had been badly damaged, but had held.

DULUTH

S. J. SCHULTE - CORRESPONDENT

NO CHANGES in memberships or in office representations of Duluth grain houses were recorded during the last month. Taken on the whole and considering the difficult marketing conditions brought about through the heavy movement of Canadian grain into export channels at lower prices than could be met on this side, receivers and elevator men here are congratulating themselves upon having put through a substantial volume of trade during the crop year from August 1 last to December 5 when the last steamer cleared for the East with a cargo of Spring wheat. Total receipts of all grains of 125,312,583 bushels compared with 138,941,500 bushels last year. Of that wheat receipts accounted for 80,475,158 bushels, or approximately 9,000,000 bushels less than last year. An outstanding feature of the crop year was the augmented movement of barley this way, amounting to 27,588,458 bushels against 20,074,387 bushels last year. On the other hand, marketings of rye fell off approximately 11,000,000 bushels at 27,588,458 bushels, due mainly to the falling in crop production.

With shipments of all grains for the period showing a drop of over 11,000,000 bushels at 11,568,963 bushels, holdings in the elevators remained at slightly over 20,000,000 bushels, compared with a high of around 31,000,000 when the final cleanup in the lake movement began.

As approximately 15,000,000 bushels storage space is still available in the elevators, operators here are stressing the point that they should be able to take care of any movement from the country for some time yet. They have also noted that five steamers are wintering in this harbor that will be available for loading during the early spring in the event of any emergency arising.

Specialists in the Durum wheat market were disappointed in the light export and millers' inquiry for it shown during the last month. Premiums for the grades remained at 20 cents over the December price, however, but sales were made at recessions within the limits during the last 10 days. Millers were said to have covered their Durum wheat requirements for the making of their special foods for a time ahead, and foreigners have been backing away as regards making new commitments. Dealers have been laying emphasis upon the point that Durum wheat is the cheapest grain on the market at its present basis, with the Chicago future selling at only 20 cents over it. A year ago the Durum wheat future at Duluth was just 8 cents under Chicago. Some of the pit crowd here are feeling bearish regarding the Durum wheat market outlook, pointing out that its country holdings are estimated at 40,000,000 bushels and that considerable quantities are being held at lower lake ports.

F. E. Lindahl, of the Cargill Elevator Company, was a consistent bull on rye during the past summer and winter and his house is estimated to have put through a record volume of trade in it. That was explained by exporters having come into the market for it early after the appearance of the Government statistics showing a heavy falling off in its production owing to drought conditions. Northwest growers of rye were at the same time favored by the heavier foreigners' demand which a wise crowd here set themselves in the way to take care of.

Spencer, Kellogg & Sons, the Van Dusen-Harrington Company and the Hallet & Carey Company were the leaders in the flaxseed market here during the fall and early winter. Eastern inquiry for seed was good and holders had the satisfaction of cleaning up their stocks at the close of navigation. That had been forecast by Eddie Rheinberger, rep-

resenting Spencer Kellogg & Sons. Operators in the flax market are now inclined to sit tight pending possible tariff changes. Linseed oil specialists here contend that an advance in the import tariff from 40 to 60 cents a bushel would be suicidal as it would be found necessary to make tariff changes in linseed oil and other flax derivatives to conform. Stress is also being laid upon the probability of a heavy increase in the use of cheaper oil substitutes.

Great Northern Elevator "S" won the honor of loading out the final cargo of grain at the close of the navigation season, a load of 425,000 bushels of Spring wheat for Buffalo delivery on account of the Barnum Grain Company.

The Cargill and the Itasca elevator interests were credited with setting the pace in the barley market during the fall period. A persistent inquiry from the East was experienced for that grain and small elevator holdings remained at the close of navigation.

R. M. White, of the White Grain Company, expressed himself enthusiastically regarding the feeds and coarse grain situation on this market. "We have done the best business in our history during the last three or four months, and it has been coming from over a wider area of country. The expansion in the dairying industry has proven the salvation of northern Minnesota and northern Wisconsin farmers, and we are looking forward to almost unlimited gains in that quarter," he said. He noted on the other hand an almost complete drying up in the call for hay, due to lighter logging operations and motor cars having largely eliminated horse sales.

H. F. Salyards represented this market at the recent conference of grain men in Chicago regarding the attitude to be taken in the pending farm relief proposals at Washington. While members of the elevator and grain trade here are feeling greatly relieved over the apparent certainty that price fixing and the equalization fee as exemplified in the original McNary-Haugen Bill will be eliminated, it is recognized that the trade will have some anxious periods before it in subjections to further marketing restrictions.

Now that the navigation season is over, an extensive exodus of grain and elevator men to winter resorts is expected to set in early in the new year. Adam Thomson and C. A. Haley, manager of A. D. Thomson & Co., are all set to migrate to Palm Beach, Fla., and "Bill" Jones, of the Hallet & Carey Company, is ready to make his usual trip to the eastern seaboard.

INDIANAPOLIS

H. M. RUDEAUX - CORRESPONDENT

INDIANA, one of the 11 principal corn producing states, has grown 170,502,000 bushels, it now appears. This total, if borne out by later figures, will exceed the 1927 harvest by some 38,000,000 bushels, but the quality is not extraordinary. The crop of last year was below normal, as a result of adverse planting and growing weather. The forecast for this year approximates the five-year average of 172,722,000 bushels. Indiana is considerably above the acreage basis of the Government tabulation of 28.3 bushels per acre or a fraction better than in 1927. The average for the state this year has been put at 36.2 bushels, about five bushels better than last year. Taking the two seasons by themselves, the gain in productive efficiency is noticeable. On the other hand, a comparison with the 10-year average shows that the output an acre has been almost stationary. The natural depletion in soil fertility has been withstood by a more extensive use of legumes and fertilizers, joined with improved methods in cultivation, but room for further improvement plainly exists.

The Cleveland Grain & Milling Company has changed the style of its firm name, and will now operate under the name of the Cleveland Grain Company. The company has been out of the milling business for several years.

Arrivals of wheat continue very light, most of which apply on contracts. Some few cars are consigned and the better grades are in demand, but off grades are hard to sell even at wide discounts.

Heavy arrivals of corn continue to come to Indianapolis and will average more than 100 cars daily. The quality is very good, especially that grain coming from Illinois points, and is grading 4 and 5 on account of moisture. The damage is so light that it is not taken into consideration. There

is a marked difference in corn coming from Indiana points. Indiana corn averages from two to three pounds lighter on the bushel than that of Illinois, of equal quality. The demand at present is very good and arrivals are readily absorbed.

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There is an excellent inquiry for good oats of three or better grade. Arrivals continue light and grade principally No. 3 on account of color, with an occasional car of No. 2 Whites bringing a good price. At present the price of spot oats is strong and demand continues good.

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Year after year Indiana has been accustomed to bring home from Chicago the international corn honors and the world would be informed that a Hoosier was the best corn grower in the world. Perhaps it is just as well for the monotony to be broken. This year the premier honors were wrested from Indiana and given to Rome Workman of Waverly, Ill. Fred L. Harting, whose farm is near Friendship, Ind., was a close second. While Indiana lost the world's championship for the time being, there is some consolation in knowing that the crown prince of the corn kingdom comes from Indiana. Ralph Troyer, 16-year-old high school boy of Lafontaine, won the junior honors. Ralph Reid, of Hope, Ind., is the junior reserve champion. In last year's show the Troyer boy's father, Chester E. Troyer, became the corn king of the world, so honors in corn growing to the Troyer family are nothing new. Another award for Indiana this year was that of John Lux, of Bridgeport, reserve championship for the best single ear. The victory of Illinois will stimulate the Indiana corn growers to renewed efforts.

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The demand for sound ear corn is very good, but prices are almost prohibitive. There have been some sales at high prices for interior points. The quality is excellent but the moisture is very high, and in fact excessive. The demand exceeds that of last year at this time, due to the light supplies of old corn left over from last year. Much higher prices are anticipated.

* * *

There has been an excellent inquiry for hay, especially Light Clover Mixed which is bringing from \$3 to \$4 a ton more than on Timothy. The demand comes from the dairying sections of the state, according to hay dealers and good quality of mixed hay can be readily disposed of at what dealers call fancy prices. The demand for straight Clover is urgent, and the supply continues to be below the urgent demand. Should adverse weather set in, which is very likely at any time and prevent loading, dealers anticipate higher prices. In many cases Heavy Clover Mixed is being substituted for straight Clover, on account of the scarcity of Clover.

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Mixed feeds continue to be in fair demand at steady to higher prices, with light offerings. It is predicted that a large percentage of Indiana's corn will be ground or crushed on the farms for feeding, especially in the feeding and dairying centers.

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Bert A. Boyd of the Bert A. Boyd Grain Company underwent a very successful operation on November 20, his birthday. His physicians are well pleased with his condition and he is improving rapidly.

NEW YORK
C. K. TRAFTON - CORRESPONDENT

TRADING in tickets of membership on the New York Produce Exchange, and especially in the "regular" seats, was extremely active during the past month, as many as eight or ten transactions being reported on some days. With the time steadily approaching for the opening of the new market for trading in "over-the-counter" securities, demand was generally very active and an interesting feature was that some of the largest stock houses were showing especially keen interest. The fact that this interest was confined mainly to the "regular" tickets was regarded as an indication that they were eager to secure the voting privilege and also the interest in the Exchange property, which the associate tickets do not carry. This led to a renewal of gossip among the intentions of Stock Exchange people in regard to the new market and the Exchange property. As a consequence, the movement of prices for the "regular" tickets was sharply upward, resulting in the establishment of a new high record price. About a month ago the tickets were selling at about \$17,500, but sales were soon made all the way up to \$32,750. Early in December some speculative holders evidently became somewhat anxious to sell, partly because of some delay in the opening of the new market, and partly owing to the sharp reaction

in the stock market, which was regarded as presaging a subsidence of speculative interest on the part of the general public. As a consequence, the next sale was made at \$32,500, followed by another at \$31,750. At this writing there are said to be sellers at \$30,000. The difference between the price of regular and associate memberships was widened appreciably during the month. The latter were selling at about \$14,300 a month ago and within a short time sales were made at \$25,500. This was the highest price paid and within a few days sales were reported at \$22,000 and \$22,500. At this time the spread between the two classes of tickets was about \$10,000.

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Charles D. Boyles, formerly prominently identified with the Albert Dickinson Company, leading seed and feed merchants on the Chicago Board of Trade, visited members of the eastern trade last month and spent a short time on the floor of the New York Produce Exchange.

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Henry D. McCord, of Henry D. McCord, Inc., grain merchants, who recently resigned his regular membership in the New York Produce Exchange, has been elected to associate membership.

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Members of the grain trade on the New York Produce Exchange were deeply pained to hear of the death of James A. Patten, the well-known Chicago grain operator. Mr. Patten had many old friends in the local market and some of them conversed with him only a few weeks before his death when he was a visitor on 'Change.

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Arthur W. Cutten, of the Chicago Board of Trade, was among the visitors on the New York Produce Exchange about the middle of last month.

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William T. Burke, flour commission merchant on the New York Produce Exchange, has had his membership transferred from the regular to the associate class.

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According to an announcement recently posted on the bulletin boards, the Hansen Produce Company, Inc., will be represented on the floor of the New York Produce Exchange hereafter by D. J. O'Keefe, vice-president, and the Seaboard Grain Company by Axel Hansen, president.

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S. P. Arnot, of Clement, Curtis & Co., commission merchants, and president of the Chicago Board of Trade, spent a few hours on the floor of the New York Produce Exchange late last month.

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John W. Danforth, who is associated with Simpson, Hendee & Co., grain merchants on the New York Produce Exchange is an applicant for membership.

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R. L. Valentine, associated with the old and well-known grain firm of Milmine, Bodman & Co., is an applicant for membership in the New York Produce Exchange.

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Members of the New York Produce Exchange Bowling League, numbering about 74 in all, have been showing up in large numbers on the alleys every Thursday night and after the practice bowling of November made a start in their campaign for prizes. The prizes for the first night were won by Cleaver with an actual score of 222 and by Graham by a score (plus handicap) of 278.

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Applications for membership in the New York Produce Exchange have been received from the following men who are identified with firms or institutions interested in trading in bonds and stocks: Marcus A. Haas, manager of the bond department of the Garfield National Bank; Jos. A. Hirshhorn of J. H. Hirshhorn & Co., and Alex. W. Herman.

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Although no definite date has been set as yet for the opening of the market for trading in "over-the-counter" securities on the New York Produce Exchange, installation of the mechanical equipment is making steady progress and it is expected that a start will be made before the end of the year. Fifty-four members have complied with the requirements to become "qualified brokers".

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At the early December meeting of the Board of Managers the following representatives of firms or institutions interested in bond and stock trading were admitted to membership: Jeffrey F. Granger of Sulzbacher, Granger & Co.; J. D. Zimmerman, of Phelps, Fenn & Co.; George W. Harris, of Harris, Ayres & Co.; Jacob F. Loeb, of Newberger, Henderson & Loeb; Ernest W. Flender, of C. B. Richard & Co.; Rudolph Tiktin, of Hallgarten & Co.; Louis L. Maltz, of A. E. Frank & Co.; Albert J. Noll, of I. D. Noll & Co.; A. F. Frandsen, of Tooker & Co.; Richard R. Limburg, of William E. Laner & Co.; James C. Malqueen, of C. H. Van Buren & Co.; Donald G. Stewart, of Winsor, Trowbridge & Co.; Henry A. Schatzkin,

of Schatzkin & Co.; George D. Robinson, of Abraham & Co.; Samuel J. Feldman, William F. Ross, Jr., Robert J. Chosek, Ferdinand A. Bruno, George D. Rosenbaum, Frank Bassett, Samuel Cummins, Frank C. Masterson, Joseph Lederer, Louis Zirinsky, Francis J. Kleeman, William T. Jackson, James DeWitt Wilde, of Cyrus L. Lawrence & Sons, Jacob B. Hoffman and Samuel P. Mainthow.

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Members of other lines of business who were also elected to membership in the Produce Exchange this month were: Charles S. Bartow, Jr., of Corner Bros. & Co., exporters; Horatio W. St. John, of H. W. St. John & Co., freight brokers; Newton H. Sobin, of the New England Products Co., chemicals and dyestuffs; Leopold Zirinsky, lawyer; Frank H. Winter, of H. Diamond & Co., Inc., crude rubber importers; Oscar Heyman, importer; Joseph Kahn, of the Kahn Textile Co., Inc., cotton converting; Charles B. Jacobs, of Jacobs Bros., Inc., manufacturers; William C. Brewer, of A. L. Burbank & Co., Ltd., steamship agents and brokers; Ralph C. Farrell, of the Bridgeport Screw Co., manufacturers; Ernest W. C. Toepfer, grain; Edward H. Roge, of Caldwell & Co., freight brokers, and H. J. W. Phillips, grain broker.

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Willis F. Rubins, New York representative of F. S. Lewis & Co., prominent grain and provision merchants on the Chicago Board of Trade, who recently resigned his regular membership in the New York Produce Exchange, has been elected to associate membership.

MILWAUKEE
C. O. SKINROOD - CORRESPONDENT

MILWAUKEE grain men were elated by the excellent showing in corn receipts for November but the rest of the grains fail to show any great cause for rejoicing. The supply of corn received at Milwaukee for the past month was over 1,605,000 bushels, which compared with only approximately 556,000 bushels for the corresponding month a year ago.

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Wheat trade is again down to a minimum at the Milwaukee market, the receipts for November this year being only 66,000 bushels. Oats trade is disappointing as it has been in previous months, the totals showing only 401,000 bushels received for last month. Barley trade makes a fairly good showing at the Milwaukee market with November receipts of 848,000 bushels. Rye business is still of small proportions as in recent months and in recent years in fact, the November receipts being only 62,000 bushels as against 87,000 bushels received for November of a year ago.

* * *

Milwaukee's malt trade is quieting down. For a number of months shipments have been running largely above those of a year ago. However, for November the shipments of malt proved to be only 199,000 bushels as compared with 198,000 bushels shipped for the corresponding month a year ago. Exports of malt have declined recently.

* * *

An amazingly small supply of corn is in store in Milwaukee early in December with only 219,000 bushels reported at the opening of the month. Corn has been moving out rapidly despite the large receipts with a heavy demand for consumption and milling and also for shipments.

* * *

Major General Jadwin, chief of the army engineers at Washington, has asked for \$610,000 for improvements of the Milwaukee Harbor and also \$20,000 for maintenance. Plans for the completion of the outer breakwater and the dredging of the bay near Jones Island, which will cost \$5,750,000, have been announced by Col. John J. Kingman, Federal engineer in charge of the Milwaukee district.

* * *

A second major proposition now before the members of the Milwaukee Chamber of Commerce is that of starting a stock exchange here. With exchanges in all parts of the United States doing a land office business in securities, there is widespread belief among grain men here that this is precisely the right time to get busy and start an exchange here.

* * *

Erection of new quarters by the Milwaukee Chamber of Commerce is being seriously considered. J. M. Riebs is chairman of the committee selected to study the proposition very carefully. The Chamber of Commerce of Milwaukee has occupied the present building at 93 Michigan Street since the structure was erected in 1880 or about 48 years. This property is owned by the Central Investment Company. The present lease expires on May 1, 1931, according to the officers of the Chamber.

While a period of two years or more is left on the lease, the Chamber does not want to leave the building proposition until the last minute since a year or two would be needed to erect a building. Sentiment of the members is for the erection of a structure to cost about \$10,000,000, and having complete facilities for grain trading and for stock and bond trading, with plenty of room for all of the grain dealers and allied lines and for the weighing and inspection departments.

* * *

The *Cornelius*, one of the largest boats on the Great Lakes, has just recently taken out a large cargo of grain consisting of about 200,000 bushels of corn and 100,000 bushels of barley, all destined for Buffalo. The Cargill company made the loading.

* * *

The total grain shipments by the Great Lakes this season from Milwaukee will be rather light. The total is around 10,500,000 bushels. This is about 5,000,000 bushels less grain than was shipped for last season.

The biggest cut has been in wheat.

* * *

Louis Larson, aged 35, was taken to emergency hospital after falling 25 feet to the bottom of an elevator shaft while working for a Milwaukee grain company. His skull was fractured and he died a few hours later. Mr. Larson was a workman in the drier house at the foot of Elevator "E" when he lost his balance.

* * *

The car ferry system out of Milwaukee will obtain a big boost with the letting of a \$2,500,000 contract for two new car ferries by the Manitowoc Shipbuilding & Drydock Company for the Pere Marquette Railroad. The new ferries, to be completed in 10 months after the keels are laid, will be among the fastest ships on the Great Lakes. They will ply with the Pere Marquette fleet, operating between Milwaukee, Ludington and Manitowoc, Mich. The new ferries will also be of very material help to the grain trade, it is anticipated.

* * *

Important topics concerning Great Lakes shipping will be considered in Milwaukee late in December when the Executive Committee and the Council of States of the Great Lakes-St. Lawrence Tidewater Association will meet here at the Hotel Pfister. Among those who will attend are Governor W. L. Harding of Iowa and Charles P. Craig, executive director of the association, whose office is now in Washington. Mr. Harding is the president of the association. The council of states includes 22 states which are committed to the St. Lawrence deep waterway project. William George Bruce, Milwaukee harbor director, is the head of the Executive Committee of this council of states.

Six traffic agents went from Milwaukee to attend the New York meeting of the National Industrial Traffic League. Those attending from Milwaukee, who were to help in considering many traffic problems, included Hugo W. Gehrke of the Milwaukee Association of Commerce, also Fred C. Bryan, J. E. Kraseman, J. L. Bowlus, transportation expert of the Milwaukee Chamber of Commerce; Albert Murawsky and T. B. Marfield.

KANSAS CITY

MERRYL SCHWIND — CORRESPONDENT

THEIR second victory of the season was won here by Southwestern grain interests and farmers in a more favorable grain grading method of determining damaged wheat. At the first meeting of the Grain Standards Advisory Committee, composed of representatives of 19 farm and grain organizations, the Department of Agriculture approved the action of the committee which placed discolored wheat that has no evidence of mold in the class of sound wheat, the external appearance of the berry to be taken as conclusive evidence in interpreting the standards as to damaged wheat.

Growers won their first victory during the early wheat movement in overcoming efforts of the grain standards division to classify Hard Winter wheat as yellow on account of being bleached by rains.

More than 50 representatives of the grain industry met with representatives of the department of agriculture at the meeting held at the Kansas City Athletic Club. H. J. Besley, of Washington, chief of the grain standards division, R. T. Miles, Chicago, in charge of field headquarters for the Department, and Dr. D. A. Coleman, Washington, chief chemist for the grain standards division, represented the Department. J. S. Hart, representing the Kansas City Board of Trade, was elected permanent chairman of the committee and C. W. Pershing, who is assistant secretary of the Kansas City Board of Trade, was elected secretary.

The meeting was the outgrowth of dissatisfac-

tion among the growers and dealers in this territory, due to lack of uniformity and too technical application of the grain grading law. In the prevailing movement of new crop Hard Winter wheat, much of which was discolored or bleached by the heavy rain soakings in the harvesting period, the issue was again brought up. Although some of the wheat was damaged to the extent of being classified as musty, most of the crop developed what is known as straw or ground odor. For this wheat the farmers received 10 to 15 cents a bushel less, and the farmers and grain men took immediate issue with the Department on this interpretation. They contended that the millers could eliminate straw odor through a washing process, placing it in a sound wheat class. They did not object to lowering the grade on account of must since this odor is carried into the flour if used in this manufacture.

Fred C. Vincent, vice-president of Simonds-Shields-Lonsdale Grain Company, who with Mr. Hart and C. M. Hardenbergh, president of the Southwestern Milling Company, represented the Kansas City Exchange, stressed the fact that grades of wheat should not be so severe as continually to lower values to the farmer.

Mr. Besley said that the farmers should be better informed as to the difficulty grain runs into when it reaches commercial channels. Referring to the contention that the Department's interpretation as to what constitutes damaged wheat has been technical and strict to an extent that the grading of Southwest wheat does not harmonize with commercial values and practices, while others believe the department has been too lenient, Mr. Besley said there is no room for differences between the department and the organized grain trade and urged the standing committee of the Southwest to continue to advise the Department on these questions.

Mr. Besley said that for the purpose of reducing to a minimum possible hazards surrounding the inspection and grading of intermarket grain movements, the department presents a proposed new regulation, which would eliminate the uncertainties confronting several inspections of the same sample by making the first grade official throughout except in the event that the grain did not go out of condition enroute. The new regulation was urged the standing committee of the Southwest to the different organizations represented for a referendum vote.

* * *

A committee from the Kansas City Grain Club is at work on plans for establishing a stock exchange in Kansas City. The committee made a report at a meeting of the club recently, where local bankers and investment dealers were present. The club voted to ask the Board of Trade directors to appropriate \$10,000 to carry on the initial campaign for a stock exchange. As now proposed, trading in securities would be limited to Board of Trade members. James W. Russell is chairman of the committee, and is assisted by E. O. Bragg, George S. Carkener, George H. Davis and Paul Uhlmann.

* * *

John Joseph Fennelly, former vice-president of the Hall-Baker Grain Company, and widely known in grain circles, died at his home in this city on November 16. Mr. Fennelly was a native of Ireland, and had lived in London until he was 21 when he came to the United States as representative of the British Bank of North America. He was connected with the Armour Packing Company in Minneapolis, and later with Morris Butts Packing Company in Kansas City. In 1890 he went as representative of the latter company to Mexico, and shortly after went to New Orleans where he was connected with Hall & Robinson, grain exporters. It was in that city that he organized his own grain business, Fennelly, Fox & Co., exporters. In 1902 he returned to Kansas City and became associated with Hall Baker, remaining with that company until his retirement in 1925, due to ill health.

* * *

The Kansas City Board of Trade will hold its annual election the first week in January. A Nominating Committee has been named. Officers to be elected are president, second vice-president, six directors, and an Arbitration Committee of five members. R. A. Jeanneret, the present second vice-president, automatically succeeds to the first vice-presidency.

* * *

The Woods Bros. Corporation has signed an agreement with the Waterways Committee of the Chamber of Commerce providing for the erection of a 2,000,000-bushel grain elevator as a part of the river-rail terminal plans. The site for the elevator has not been decided upon definitely. The elevator will be on the Missouri River and will handle grain from railroad cars to barges and vice-versa. The company will erect an original unit with storage capacity for one-fourth to three-quarters million bushels of grain. The unusual agreement resulted from the fact that the Water-

ways Committee found itself facing the necessity of being assured that such an elevator would be built by private interests before the committee could make recommendations on site and construction of the city's river-rail terminal. Woods Bros. are owners of the proposed wharf site and are interested in the development of the river front adjacent thereto.

* * *

Edmund D. Bigelow, assistant to the president of the Kansas City Board of Trade, and for more than 35 years associated with the Kansas City Exchange, celebrated his ninetieth birthday on December 5. Friends of Mr. Bigelow attended a reception at his home in the evening and the members of the Exchange presented him with a Governor Winthrop desk. Mr. Bigelow is a native of Massachusetts and was born at Sherborn in 1838.

* * *

Philip G. Hale has made application for membership on the Kansas City Board of Trade on transfer from Allen Logan, III. The price of \$7,000 included \$500 transfer fee.

* * *

The Davidson Mill & Elevator Company filed voluntary bankruptcy in the Federal court in this city on November 27. The company listed liabilities of \$125,462.79 and assets of \$127,918.55. Losses incurred during the flood which visited the Blue Valley early in November caused the failure. The plant, which manufactures stock and dairy feeds, suffered heavy losses to materials and equipment, and about 25 per cent damage to grain held in storage for other companies and individuals. John N. Davidson is president of the company.



AT THE first meeting of the new Board of Directors of the Omaha Grain Exchange elected November 14, the following were elected to serve as officers of the Exchange for the coming year: President, E. W. Taylor of the Nye & Jenks Grain Company; first vice-president, W. T. Burns of the Burns Grain Company; second vice-president, C. H. Wright of the Nebraska-Iowa Grain Company; treasurer, W. J. Hynes of the Hynes Elevator Company; secretary, F. P. Manchester. The last two succeed themselves. In the general election, C. H. Wright was elected director to succeed O. E. Harris, retiring president; Chauncey Abbott of the Omaha Flour Mills and M. I. Dolphin of the Dolphin-Jones Grain Company were re-elected.

* * *

At a dinner and meeting of the Omaha Grain Club held December 4, at the Omaha Athletic Club, possible organization of a local stock and bond exchange was discussed, for the purpose of trading in securities of Nebraska and Iowa corporations. No action was taken other than the appointment by president, J. A. Linderholm, of a committee to investigate the possibilities, which will report to the club at a meeting in January. The following committee was appointed: L. L. Quinby of the Mid-West Grain Company; N. B. Updike of the Updike Grain Corporation; J. L. Welsh of the Butler-Welsh Grain Company; E. C. Twamley of J. F. Twamley Son & Co.; A. R. Kinney of the Nebraska Consolidated Mills Company. Further business of the meeting included a discussion of mutual insurance for grain exchange members such as several exchanges now have; possibilities of promoting a hay exchange; and discussion of grain futures trading.

* * *

Forty grain exchange members were entertained by C. E. Hunter, local manager for Lamson Bros. & Co. of Chicago, at two wild duck dinners early this month. Forty more were treated to venison by H. A. Butler, president of the Butler-Welsh Grain Company at dinner on December 11.

* * *

More than 10,000 cases of grippe and flu have been reported in Omaha during the past two weeks and it is estimated that there are at least twice as many more that have not been reported to the health department. In one day, 603 employees at the Union Pacific Railway Headquarters Building, out of a total of some 1,700, were absent from work. As yet, the epidemic has not been checked and there have been comparatively few deaths as a direct result of this epidemic. The Grain Exchange Inspection Department has been badly hampered in its work due to illness of both inspectors and samplers.

* * *

Heavy snows and rains throughout the Winter wheat belt of Nebraska during the past three weeks will carry the crop through to the spring months in good shape. Movement of the corn crop in this

THE AMERICAN ELEVATOR AND GRAIN TRADE

Forty-Seventh Year

territory has been delayed on this account, and feeders have been forced to pay fancy premiums for feeding supplies, as the crop is short in central and northern Nebraska. Few oats move to market in this territory and the farm disappearance is increasing every year.

Over \$500 was contributed by grain companies to the fund for the benefit of the Stribling and Resso families, victims of a maniac who last month killed three and almost fatally injured another with an axe. A total of more than \$2,500 was raised in a campaign started by the Omaha World-Herald for the aid of these two families.

Among those attending the convention, beginning December 11, of the Farmers Elevator Association of South Dakota at Mitchell were A. H. Bewsher of the Updike Grain Corporation, J. F. Mead of the John W. Redick Company, Doyle Hart of the Omaha Elevator Company, W. L. Shepard of the Trans-Mississippi Grain Company, Robt. Becker of the Crowell Elevator Company, W. R. Watson of the Lucke-Gibbs Grain Company.

GRAIN NEWS FROM BOSTON

By L. C. BREED

Jacob I. Andrews of New England Cereal Company, Boston, has applied for active membership in the Boston Grain & Flour Exchange.

Elmer E. Dawson, chairman of the permanent fund of the Boston Grain & Flour Exchange, was elected president of the newly incorporated H. L. Tuttle Flour Company of Somerville.

Peter P. Mullen, assistant secretary of the Boston Grain & Flour Exchange, recently resigned to become connected with the Midland Flour Milling Company of Kansas City in its Boston office.

Owing to the open weather that prevailed in November, seed dealers report still having had some trade for winter rye. The demand for all kinds of seed for delivery in the spring has become more active. The dealers are placing their own orders with western shippers to cover these sales and to stock up for further trade.

The demand for grain from New England retailers during November was of a seasonable character for both prompt shipment and forward delivery. Dealers handling chicken wheat are busy shipping from lake ports supplies to fill orders taken last month. There is a moderate demand for mill feed and an active trade in concentrated and commercial feeds. The offerings of Canadian mill feed are quite limited.

The receipts of hay while not excessive were ample for local requirements as the demand was only moderate. Prices have ruled steady. The receipts at Boston for the month of November were 250 cars. Rye straw 10 cars.

During the month of November exports of grain from the Port of Boston were as follows: Hamburg, 94,628 bushels wheat; Liverpool 56,100 bushels wheat; Bremen, 34,073 bushels wheat; Newfoundland, 47,955 bushels wheat; Bremen, 55,000 bushels barley; Hamburg, 35,000 bushels barley; Copenhagen, 2,200 sacks oatmeal; Hamburg, 1,000 sacks oatmeal.

The receipts of grain at Boston during the month of November, as tabulated by the Boston Grain & Flour Exchange, were as follows: Wheat 1,328,550 bushels; oats, 49,375 bushels; barley, 699,425 bushels; malt, 8,225 bushels; mill feed, 88 tons; cornmeal, 685 barrels; oat meal, 6,300 cases and 627 sacks.

Among the visitors to the Exchange during the month of November, outside of New England, were the following: L. G. Bohneric, Chicago, Ill.; S. C. Northrop, Waterboro, Wis.; W. L. Chamberlain, Chicago, Ill.; Robert Osborn, Clinton, Iowa; C. R. Anderson, Fergus Falls, Minn.; Paul Rutherford, Minneapolis, Minn.; Stuart Wilson, Deposit, N. Y.

RECEIPTS AND SHIPMENTS FOR NOVEMBER

BALTIMORE—Reported by Jas. B. Hessong, Secretary of the Chamber of Commerce:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	3,859,907	2,612,364	1,269,092
Corn, bus...	455,219	56,646	124,286
Oats, bus...	50,702	82,577	13,686
Rye, bus...	4,339	43,430	26,562
Barley, bus...	897,561	823,996	713,677
Malt, bus...	27,027	9,970	2,400
Buckwheat...		2,444	
Hay, tons...	399	390	
Straw, tons...	21	21	
Mill feed, tons...	1,242	997	
Flour, bbls...	129,183	116,888	29,073
			43,912

CHICAGO—Reported by F. H. Clutton, Secretary of the Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	1,842,000	2,884,000	937,000
Corn, bus...	10,510,000	6,860,000	3,795,000
Oats, bus...	2,358,000	4,553,000	1,737,000
Barley, bus...	1,041,000	714,000	1,683,000
Rye, bus...	706,000	1,010,000	309,000
Timothy Seed, lbs...	956,000	3,812,000	393,000
Clover Seed, lbs...	2,751,000	4,689,000	604,000
Other Grass Seed, lbs...	1,883,000	3,972,000	1,355,000
Flax S'd, bus...	417,000	368,000	1,212,000
Hay, tons...	9,835	13,721	6,000
Flour, bbls...	1,015,000	1,102,000	549
			707
			653,000

CINCINNATI—Reported by J. A. Hallam, Chief Inspector of the Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	68,600	198,000	197,400
Shelled Corn, bus...	596,400	352,800	522,200
Oats, bus...	88,000	250,000	261,800
Barley, bus...	9,600	4,200	196,000
Rye, bus...		7,000	174,000
Grain Sgms, bus...	2,800	1,400	11,200
Buckwh., bus...	1,400	4,200	2,800
Ear Corn, bus...	5,000	9,000	
Feed, tons...	210	780	
Hay, tons...	5,203	5,698	

DULUTH—Reported by Chas. F. MacDonald, Secretary of the Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	15,500,268	17,065,025	18,820,325
Corn, bus...	162,434	21,607	21,853,458
Oats, bus...	735,590	327,562	156,727
Barley, bus...	2,687,212	4,175,033	1,215,835
Rye, bus...	1,146,155	2,800,449	1,063,321
Flax S'd, bus...	1,407,921	3,010,437	4,233,557
Flour, bbls...	682,825	687,560	893,258
			3,109,631
			2,470,929
			4,534,276
			579,215
			751,760

FORT WILLIAM, ONT.—Reported by E. A. Ursell, Statistician of the Board of Grain Commissioners for Canada:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	72,861,176	70,965,114	89,944,256
Corn, bus...	5,800	3,123	5,800
Oats, bus...	6,250,809	2,690,078	5,499,574
Barley, bus...	9,968,306	4,660,441	12,171,001
Rye, bus...	1,366,895	1,492,886	2,035,185
Flax S'd, bus...	786,500	1,102,972	884,985
*Mix. Grain, bus...	412,133	127,969	186,319
*50 lbs. per bushel.			59,334

GALVESTON—Reported by H. A. Wickstrom, Chief Inspector:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...			724,000
Corn, bus...			492,857
Barley, bus...			253,000
Kaffir Corn, bus...			222,857
Milo, bus...			12,857
			42,857

HOUSTON—Reported by W. J. Peterson, Chief Grain Inspector and Weighmaster of the Merchants Exchange:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...			557,225
Corn, bus...			68,571
Barley, bus...			90,000
Kaffir Corn, bus...			34,000
Milo, bus...			41,540
			11,812

INDIANAPOLIS—Reported by Wm. H. Howard, Secretary of the Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	222,000	285,000	234,000
Corn, bus...	2,568,000	1,720,000	2,741,000
Oats, bus...	532,000	702,000	1,499,000
Rye, bus...	1,600	8,000	724,000
Flour, bbls...			614,000
produced	41,287		1,600

KANSAS CITY—Reported by W. R. Scott, Secretary of the Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	5,168,020	5,624,190	3,217,500
Corn, bus...	2,139,000	2,505,000	4,009,720
Oats, bus...	168,000	486,000	819,000
Barley, bus...	288,000	190,400	154,000
Rye, bus...	28,500	43,500	137,600
Bran & Sh'ts, tons...	5,300	5,340	284,800
Kaffir-Milo, tons...			21,000
Corn, bus...	448,800	410,300	314,000
Hay, tons...	18,516	14,388	6,432
Flour, bbls...	72,150	58,825	5,880
			719,575
			764,400

LOS ANGELES—Reported by M. S. Thiebaud, Secretary of the Grain Exchange:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, cars...	175	176	
Corn, cars...	256	234	
Oats, cars...	68	34	
Barley, cars...	122	124	
Kaffir Corn, cars...	10	64	
Bran, cars...	89	92	
Flour, cars...	110	116	

MILWAUKEE—Reported by H. A. Plumb, Secretary of the Chamber of Commerce:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	66,240	198,720	910,116
Corn, bus...	1,605,800	556,480	692,936
Oats, bus...	401,100	639,400	746,025
Barley, bus...	848,400	821,700	1,060,596
Rye, bus...	62,100	87,750	572,739
Timothy S'd, lbs...	217,600	180,000	49,640
Clover Seed, lbs...	2,622,737	580,131	58,210
Flax Seed, lbs...	149,480	130,130	209,989
Hay, tons...	612	742	81,100
Flour, bbls...	301,000	352,493	12
Feed, tons...	5,700	7,400	338
			29,895
			8,250
			9,954

MINNEAPOLIS—Reported by G. W. Maschke, Statistician of the Chamber of Commerce:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	10,261,060	9,457,570	5,235,040
Corn, bus...	1,829,120	455,140	4,490,980
Oats, bus...	1,690,190	1,534,970	955,880
Barley, bus...	2,154,310	1,423,900	466,910
Rye, bus...	575,690	420,340	1,939,470
Flax Seed, bus...	1,278,080	1,065,090	2,622,280
Hay, tons...	2,436	1,350	1,600,920
Flour, bbls...	16,156	26,671	509,430
			228,980
			676,500
			299,320
			466
			58
			1,113,165

NEW ORLEANS—Reported by S. P. Fears, Chief Grain Inspector and Weighmaster of the Board of Trade, Ltd.:

Receipts		Shipments	
Cars 1928	Cars 1927	Bus. 1928	Bus. 1927
Wheat	123	267	666,035
Corn	749	75	681,903
Oats	36	33	473,653
Barley	83		44,959
Rye			1,079,999
Grain Sorg...	1	2	40,316
			66,249

NEW YORK CITY—Reported by H. Heinzer, Statistician of the Produce Exchange:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	12,626,000	9,616,600	7,473,000
Corn, bus...	402,000	103,500	5,994,000
Oats, bus...	964,000	628,000	120,000
Barley, bus...	3,282,000	4,223,400	988,000
Rye, bus...	102,000	226,500	2,067,000
*Clover seed...	552	2,475	155,000
Flax Seed, bus...		93,600	2,322
Hay, tons...		5,269	9,259
Flour, bbls...	1,437,857	1,247,965	450,000
*Bags, †Bales.			7,393
			443,000

OMAHA—Reported by F. P. Manchester, Secretary of the Omaha Grain Exchange:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	2,204,800	1,702,400	1,901,200
Corn, bus...	1,104,600	5,502,000	1,323,000
Oats, bus...	578,000	538,000	870,800
Barley, bus...	75,200	137,600	3,217,200
Rye, bus...	99,400	138,600	518,000
			169,600
			155,400

PEORIA—Reported by John R. Lofgren, Secretary of the Board of Trade:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	161,400	85,200	201,600
Corn, bus...	2,650,900	1,653,050	81,600
Oats, bus...	625,000	711,000	1,122,450
Barley, bus...	181,200	61,600	792,450
Rye, bus...	1,200	3,600	490,150
Mill F'd, tons...	34,500	36,560	54,600
Hay, tons...	1,400	3,330	68,800
Flour, bbls...	238,800	241,100	48,570
			44,814
			110
			350
			230,100
			223,900

PHILADELPHIA—Reported by A. B. Clemmer, Secretary of the Commercial Exchange:

Receipts		Shipments	
1928	1927	1928	1927
Wheat, bus...	3,219,343	1,286,703	826,911
Corn, bus...	176,623	107,498	634,571
Oats, bus...	98,669	141,527	107,143
Barley, bus...	196,618	21,407	50,400
Rye, bus...	2,163	16,479	78,631
Flour, bbls...	183,341	203,360	49,664
			9,190
			23,734

PORTLAND, ORE.—Reported by F. W. Clark, Secretary of the Merchants' Exchange:

	Receipts		Shipments	
	1928	1927	1928	1927
Wheat, bus...	2,664,350	5,108,350	9,188,713	5,990,839
Corn, bus. ...	183,375	147,000	.....	170,000
Oats, bus. ...	83,600	190,000	.....	1,812,000
Barley, bus. ...	4,350	21,000	45,000	52,000
Rye, bus. ...	11,200	23,400	.....	9,333

HAY, STRAW AND FEED

DEFINITELY attached to the American grain handling industry is the feed grinding sideline. Elevator men now share with millers the problem of dust control which results from the action of grinding equipment. For those who wish to keep posted on the latest research results of Federal dust control engineers, this summary is prepared.

At Rosslyn, Va., engineers of the United States Department of Agriculture established a two-story feed mill some time ago, in order to pursue, under conditions identical with those in the average feed plant, a study of inert gas control of the dust explosion hazard.* As most of the equipment in this experimental plant was standard, only a brief description of it is necessary.

A 24-inch double-runner attrition mill, lent by Sprout, Waldron & Co., Muncy, Pa., was used for the test. The elevator selected was of the all-metal type having head, boot, and legs of galvanized sheet iron. The belt was six-inch cotton, and carried buckets at 16-inch intervals. The blower was of the high-pressure type, and was operated by a three-horsepower motor. A 25-horsepower motor drove the mill and elevator.

To carry the gas from a nearby boiler house to the mill, a five-inch pipe was laid underground. Inside the mill, smaller pipes fitted with valves, led off to various injection points on the mill and elevator.

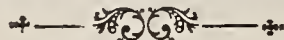
Carbon holders and the necessary equipment for an electric arc to ignite the dust cloud were provided directly below the attrition mill.

In making the explosibility tests a record was kept of the temperature inside and outside the plant, the barometer reading, and the wet and dry bulb readings. Special attention was given to these conditions when explosions were produced in order to determine what effect, if any, such factors would have on dust ignitions. As earlier laboratory and small-scale tests had shown that oat, corn, or wheat elevator dust is not explosive when suspended in atmosphere containing from 14 to 14.5 per cent oxygen, the first attempt to ignite the oat-hull dust within the mill was made when the gas analysis showed 8.2 per cent carbon dioxide and 12.5 per cent oxygen in the mill. It was demonstrated that it would not ignite.

Later, when the mill had been grinding for some time and more fine dust was being circulated, a still lower oxygen percentage was obtained before an attempt was made to ignite the dust. Several tests were made when the analysis of gas samples collected from the chamber below the mill showed that they contained approximately 9 per cent carbon dioxide and 11.5 per cent oxygen. Although the electric arc was probably a more certain and a more intense source of ignition than would be found in actual practice, even under these conditions, the dust did not ignite.

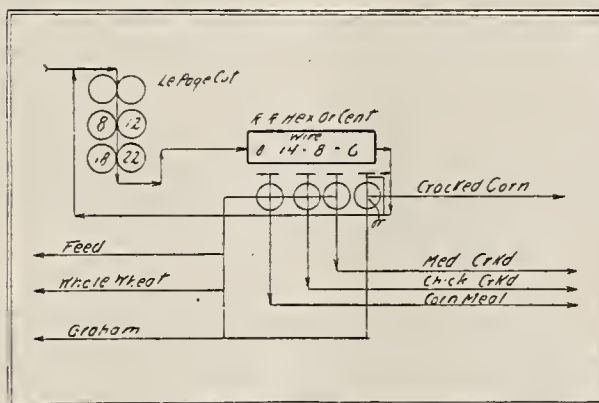
Then began a series of tests in which the quantity of flue gas entering the mill was gradually reduced, and consequently the oxygen percentage of the atmosphere within the enclosure was increased. These tests were continued until the carbon-dioxide content had been reduced to 4.2 per cent and the oxygen increased to 16.5 per cent, when an ignition and slight concussion followed the lighting of the electric arc. The base of the mill filled with flames, smoke or dust was forced from cracks in the equipment, and the cover of the opening on top of the feed hopper above the mill was lifted partly off.

A sample of gas was drawn, and at least the carbon-dioxide content was determined before each

A Gas Attack on
Dust Hazard

attempt to produce an explosion. As the critical point was approached samples of gas were taken in bottles to be analyzed more accurately in the laboratory, and the results were checked against the results obtained with the Orsat apparatus at the plant. Hundreds of analyses were made. About 50 explosions took place in the mill. It was not possible to start an explosion when the oxygen had been reduced to 15 per cent.

Before installing a new device it is logical for the mill manager to consider the effect it may have upon the health or safety of employees. Owing to a misunderstanding of the recommended method of using inert gas for explosion and fire prevention, the question concerning the possible injurious effect of the gas on employees is asked frequently of Government representatives. It would, they say, be impossible for a man to work in an atmosphere sufficiently low in oxygen to prevent explosions, and



LAYOUT OF INERT GAS EQUIPMENT

it is not intended that the gas should be used in a room or inclosure where employees work or which they even enter. The system has been developed and is recommended for enclosed grinding, conveying, or handling equipment, and when used as intended will have no injurious effect on employees. Enclosed milling systems are constructed to prevent the escape of dust and can easily be made tight enough to prevent the escape of any appreciable quantity of gas into the room or building where employees are at work.

When flue gas is used as the medium for reducing the oxygen content of the air to the percentage necessary to prevent explosions in grinding equipment and the gas is also introduced into bins or inclosures to which the ground material passes, employees should not enter these bins or enclosures.

The use of flue gas for dust-explosion prevention has been recommended because as a rule it offers a ready source of carbon dioxide, and it appears to be most logical to use carbon dioxide for this purpose. No question arises concerning the effect of carbon dioxide on the material being ground. Its use in the preservation of food products and the making of carbonated beverages and the fact that it passes off quickly upon exposure of the product to the air indicate that this gas would have no injurious effect upon the material. There is, however, the possibility of other gases being present in flue gas, particularly when the fuels are sulphurous or arsenious, which would necessitate the cleaning of the gas.

RICE BRAN UNPALATABLE

The net energy content of rice bran is estimated to be between 75 per cent and 80 per cent as large as that of milo chops and the digestible protein

content is about the same. However, the composition of rice bran varies considerably. Except for its unpalatability, rice bran could be substituted in any dairy ration on that basis. On account of its unpalatability rice bran should not ordinarily make up more than a third of the grain ration for cows which have not been accustomed to it.

Cows differ in the amount of distaste they show for rice bran. It is possible that those cows accustomed to it for long periods of time might not show so much distaste. It is not true that rice bran taints milk.

OLD NEW YORK FIRM RETIRES

By JOHN B. G. BABCOCK

Formal announcement has been made that Ah-wa-ga Mills, Inc., successor to Empire Grain & Elevator Company of Binghamton, N. Y., will discontinue business December 31. The company's plant was destroyed by fire October 11, with a loss of about \$250,000, and directors have decided not to rebuild. All contracts of the concern have been turned over to the Tioga-Empire Feed Mills, Inc., of Waverly, the parent company with which the Empire Grain & Elevator Company merged two years ago. The latter concern, predecessor of Ah-wa-ga Mills, Inc., was founded in 1892 by Leslie M. Wilson and Thomas H. Wilson, brothers. Officers and employees of the company gave a complimentary dinner for the Wilson brothers here November 30, at which announcement was made of the closing out of the concern's business.

HAY MARKET HAS FIRMER TONE

The hay market developed a firmer tone during the week ending December 8, largely as a result of smaller offerings and a more active demand brought about by storms and wintery weather which spread over western areas, according to the weekly hay market review of the United States Bureau of Agricultural Economics. Arrivals, particularly of the better grades, were being readily taken. Prices held generally unchanged although the tone of the market was firm.

Timothy markets were not affected as much by the colder weather as were the markets for Alfalfa and Prairie hay but demand was of moderate volume at most points and offerings were readily taken. The lower grades, which constituted the bulk of the receipts at New York, continued to sell slowly but good quality hay was firm both in that market and in Boston. At the latter market receivers were finding it necessary to make liberal price concessions to move the lower grades and prevent storage charges.

Central western Timothy markets were generally more active. Lower grades were barely steady at Pittsburgh but better grades sold readily both at that market and at Cincinnati. Receipts were larger at the latter market and demand was better for practically every kind of hay, but especially for Clover and Alfalfa. Current offerings were inadequate for market requirements at St. Louis and the market was quite firm. At Chicago all grades of Timothy, Timothy and Clover mixtures and of Clover and Alfalfa. Current offerings were inadequate for market requirements. Country loadings in tributary areas have fallen off and colder weather has increased the consuming demand. This was also true at Minneapolis where better grades were very firm.

Alfalfa markets more than others reflected the wintry weather in the Middle West in a sharp decline in receipts and an increased inquiry for all grades of this hay. Choice and medium grades were difficult to obtain at Kansas City as offerings were mostly of lower quality. There was a widely

* Full details of the trial may be had in the 1928 Technical Bulletin No. 74, of the Department of Agriculture, written by H. R. Brown.

scattered demand from the Southwest as well as from points in Iowa and Illinois. Milling inquiry for Alfalfa was active but supplies of suitable hay were limited. Prices at that market however, were not materially changed. Alfalfa from Oklahoma was reported to be moving to Tennessee, Alabama and Arkansas while Nebraska shipments were moving eastward and northward. There was also a good local demand at interior points in Kansas and Nebraska which was partially responsible for the light receipts at Omaha, where offerings were being cleared up daily.

Pacific Coast markets were also firm but prices were unchanged at Los Angeles where arrivals continued of good volume. Cold weather was reported from Washington but with no snow and stocks was remaining on pastures. \$5.50 per ton was being paid to growers for Number 1 Alfalfa around Toppenish.

The Prairie market was firm reflecting principally the strength in the Alfalfa and Timothy markets. Supplies of Prairie hay however in the Southwest are reported relatively small, particularly in Texas where cutting has now stopped and where offerings are principally from storage and consists mostly of Number 2 Prairie which is quoted at about \$10 f. o. b. shipping points. Receipts of Prairie hay at Kansas City were fairly large but there was good inquiry toward the close of week and fairly large shipments to Iowa and Wisconsin. Stockyards and retailers were also competing with offerings in that market. The Prairie market was steady with firmer tendency at Omaha and Minneapolis.

POULTRY FEEDS IN THE WEST

By W. F. HOLST

Experiment Station Husbandman, Berkeley, Calif.

For many years commercial feed mixtures have had a large place in the poultry industry of California. This fact seems to indicate that they are serving a very useful purpose. Whether in a given case it is better for the poultryman to mix his own, or purchase ready mixed feeds is largely an economic question.

The feed dealer has the advantage of buying feedstuffs and mixing feeds in large quantities. Not infrequently he can lay his products down in the poultryman's feed house as cheap or cheaper than the latter can by doing his own mixing. This leaves the poultryman free to devote his whole time to the management of his flock.

The decision as to whether commercially mixed or home-mixed feeds are to be employed in a given instance is a matter of business judgment and common sense, provided always that the principles outlined above have been followed reasonably closely.

It has been pointed out and indeed emphasized that there is no one best ration. Any ration which provides the proper kinds and proportions of nutrients as economically as possible is a good ration. There is no reason to believe that anyone can do more than this. There does not appear to be much foundation for large claims concerning secret formulae or particular substances.

RATIONS TO BALANCE HOME GROWN GRAINS

"How am I going to feed home grown grains to my flock of hens and yet get the egg production that comes from feeding a balanced ration?" is the question the average farmer asks himself over and over. The question has gone unanswered for years, but the news made known by the Purina Experimental Farm, where experiments along this line have been conducted for some time, shows that a big step forward has been made in solving the farmer's problem of feeding home-grown grains to his hens and getting eggs that result from feeding a balanced ration.

The experiments of the Purina experimental farm and other farms supported by commercial feed interests, reveal that by the slight addition of a special kind of supplementary laying mash, as one-fourth of the complete ration the grains grown on the average farm can be utilized, as three-fourths of the complete ration in giving hens a balanced

ration containing the necessary proteins, vitamins and minerals for maximum egg production.

According to J. S. Jones, manager of the Poultry Department of the Purina Mills, it will now be possible for the farmer to feed a ration composed three-fourths of his home-grown grains and one-fourth of this new laying mash, which will be known as "30% Chowder" and get more fall and winter eggs when egg prices are higher.

HULLS MAKE EXPENSIVE FEED

Experiments now completed in Texas show conclusively that sorgo silage and fodder are more satisfactory roughages than cottonseed hulls when fed with ground milo heads and cottonseed meal to fatten calves.

Calves fed cottonseed hulls did not possess the finish that was found in calves fed silage. On a three-year average, Lot No. 1, fed silage, showed a feed cost of \$11.33 per 100 pounds of gain. Lot No. 2, fed cottonseed hulls, showed \$13.80 as its feed cost.

"SHOW ME" EXPERIMENT STATION TESTS OIL FEED

The results of a nutritional experiment with poultry at the Missouri station, as reported by H. L. Kempster, in which cod liver oil and sunshine play the important part, are published in the April issue of Experiment Station Record. The statement is as follows:

"Two per cent of cod liver oil was fed in the mash to three lots of hens. One lot was exposed to winter sunshine and the other lots were kept behind glass. Three other lots were kept under similar conditions but received no cod liver oil. From December 10 to March 31, White Leghorns in lot one with sunshine and cod liver oil produced an average of 48.1 eggs, lot two (White Leghorns) with sunshine and no cod liver oil produced 40.8 eggs, lot three (White Rocks) receiving cod liver oil and no sunshine produced 51.4 eggs, and lot 4 (White Rocks) with no sunshine and no cod liver oil produced 24.5 eggs.

"Brown Leghorns in lot 5 with cod liver oil and no sunshine produced 49.8 eggs, and in lot 6 with no cod liver oil and no sunshine, 21.6 eggs. The percentage of hatch of fertile eggs in the respective lots was 81.5, 80.6, 47, 33, 42, and 7.3."

GREEN FEEDS FOR WINTER

Probably no side of poultry feeding has been stressed more in the last two years than the value of green feed ingredients. Results of a recent egg laying contest conducted in Louisiana by state extension workers, proves conclusively that this emphasis has not been misplaced.

For a short period during winter months, green feed was withheld from the experimental pens, and heavier losses and more diseases were experienced during that short time than at any time before or after.

Green feed not only is valuable because of its Vitamin A content, but for its general tonic effect. To the farmer, green feed means home grown vegetable leaves and stalks, but the rapid increase in the use of ground Alfalfa leaves and hay, permits the Alfalfa product to rank as a green feed of unsurpassed value. It is always available during winter months in feed stores, when other green feed ingredients are not in season.

OIL FOR STOCK AS WELL AS POULTRY FEED BENEFICIAL

So much has been promised and proved in regard to cod liver oil as an advantageous poultry feed ingredient that the use of the oil in stock feeds has been overlooked.

In the 1928 report of the Pennsylvania Agricultural Experiment Station, at State College, Pa., details are given of a trial which showed the ill effects of feeding heifers a ration deficient in Vitamin A. How the bad effects were counter-balanced by oil feeds is explained in the statement which follows:

"The Vitamin B studies which were reported in

Bulletins 196, 204, and 213, afforded an opportunity to study the effect of Vitamin A deficiency upon dairy heifers. The ration used in our Vitamin B studies was decidedly deficient in Vitamin A when cod liver oil was not included. Observations have been made on five heifers. Ultra-violet light was supplied by exposure of the animals under a carbon arc lamp for 15 minutes each day during the winter months to insure an adequate supply of Vitamin D. The heifers also were given a liberal exposure of sunlight in an exercise lot throughout the year when weather conditions permitted.

"The five individuals were exactly alike in one outstanding symptom, viz.: After six to seven months of feeding the deficient ration oedema would appear in the legs. This condition would gradually grow worse for several weeks and the heifers would walk with considerable difficulty. The appetite would decline gradually, and the swelling would begin to appear about the neck and shoulders and to some extent over the back. Oily exudations appeared on the legs and, to a lesser degree, over the neck and shoulders. In one extreme case air collected under the skin on the back. A tendency for the respiration to speed up was common to all cases.

"Two of the heifers were slaughtered, and one died. Postmortem examination indicated one case of abscesses in the liver. No evidences of bone disease or nerve deterioration were observed. The tissues in all cases were heavily infiltrated with a watery fluid where the oedema existed. One heifer went completely blind. This animal took fit-like spasms occasionally. She would stagger, fall down, and struggle violently until exhausted. After lying still for a time and recovering her breath, she would rise to her feet and go about in her usual peculiar manner.

"Cod liver oil treatment tried in three cases was effective almost immediately. Two complete cures were effected by several weeks of cod liver oil feeding."

WATER IS FEED FOUNDATION

Green feed, shell, grit, and good quality grains, are all important factors in winter egg production, but the primary requisite and the item which is most frequently overlooked in cold months, is a good supply of water for poultry. The best of feeds purchased at the local elevator cannot produce the desired results if the feeder neglects the *aqua pura*.

Meat scrap as well as salt is thirst-producing, and generous proportions of each are to be recommended. Five pounds of salt and 100 pounds of meat scrap, compounded with 100 pounds each of bran, shorts, ground yellow corn, and pulverized oats, represent one effective dry mash formula if cod-liver oil, green feed, and water supplement it as the season demands.

COWPEAS STARTING MOVEMENT

Early movement of cowpeas from the hands of growers was about the same as that of other recent years, according to the United States Bureau of Agricultural Economics. Movement showed considerable irregularity. In many localities threshing had not been completed on November 13 and scarcely any peas had been delivered, while in certain districts movement was ahead of that of last year. In general the crop was later than last year and growers preferred to hold rather than to sell freely; while on the other hand, dealers were more active buyers than they were a year ago.

The crop was harvested under favorable conditions in many of the important districts and as dry and otherwise favorable weather prevailed at time of maturity, the quality may be higher than first expected. Fair to good quality was indicated in the majority of reports this year and good to very good last year.

Apparently the earlier reports, indicating the crop for the current year to be of much smaller size than last year, were confirmed by recent ones from more than 130 country shippers who expected their shipments of 1928-crop cowpeas would be about 60 per cent of those from the 1927 crop.

FEED MARKET EASIER

The feed market during the week ending December 11 was somewhat weaker and prices of the principal feeds averaged unchanged to lower, according to the weekly feed market review of the United States Bureau of Agricultural Economics. Wheat feeds were weak as liberal offerings met a poorer demand and concentrates were barely steady. Corn byproducts feeds and Alfalfa meal continued firm at unchanged prices.

The production of wheat feeds as indicated by flour production was of larger volume. Flour production at the principal milling centers for the week ending December 8, totaled about 1,538,000 barrels compared with 1,423,000 barrels for the preceding week. This output was larger than that of the corresponding week a year ago and about equal to that of the past four years.

Wheat millfeed market was easier due to the liberal offerings meeting a slower demand. Prices were generally lower. In the Northwest the markets were easy as the result of a light demand for liberal offerings and considerable selling pressure by the smaller mills. This situation was also reflected in the weaker market at Buffalo. Local mill production continued heavy but still mills were about three weeks behind on shipments. Local offerings were thus not heavy, but selling pressure from western markets and the lack of demand brought about an easier situation. Although the Kansas City wheat feed market was dull during the early part of the week, it developed a slightly stronger tone at midweek. Mill offerings of bran declined and the demand was sufficient to absorb the supply. Offerings for deferred shipments at substantial premiums met a slow demand. Shorts showed more strength than bran as demand for heavier offal weeds was brisk.

The 1928 cotton crop was forecast as of December 1 at 14,373,000 bales, an increase of 240,000 bales or nearly 2 per cent over the forecast of a month ago. This crop if realized indicated that about 625,000 tons more cottonseed are potentially available than was last season. On the basis of cottonseed cake and meal mill outturn in the past, this additional seed supply would indicate about 230,000 tons more cottonseed cake and meal are available for this season than last. But with unusually small stocks on hand at the beginning of season, the total supply may only be about 190,000 tons more than last year. However, production since the beginning of the season has been less than for the past year, but seed holdings are larger. According to the Bureau of the Census, about 1,011,000 tons of cottonseed were received at the mills during the month of November from stocks at the beginning of the month and these receipts, about 870,000 tons were crushed, leaving on hand December 1 about 1,323,000 tons of cottonseed compared to 1,114,000 tons at that date a year ago, and 1,392,000 tons December 1, 1926. The larger mill inventory of cottonseed, principally western seed, indicates seed is of good keeping quality.

The production of cottonseed cake and meal during November, which totaled slightly over 387,000 tons was considerably above that of the corresponding month last year, but less than for November, 1926. This production with the seasonally small stocks at the beginning of November made a total supply of about 511,000 tons of which about 350,000 tons were shipped out into the consuming channels, and the remainder, 161,000 tons were on hand at mills, December 1. This month's carry-over was smaller than for the past two years.

The prices of cottonseed cake and meal were barely steady for the week. In the Southeast offerings were fairly liberal but demand was slightly weaker.

Linseed cake and meal prices were about unchanged from week ago. The Minneapolis market was holding fairly steady due primarily to lack of selling pressure as demand was dull. Mills were not offering meal as shipping directions on previous orders were absorbing majority of their output. The situation at Buffalo was easier due to lack of demand and the more liberal offerings by mills and resellers. A better demand for the oil

has stimulated mill activity and mills were filling old orders and were anxious for new business.

Gluten feed market was firm due to an active demand for the small stocks and offerings. The situation is very strong at Buffalo with an urgent demand for feed for nearby shipment. As mills were sold up for the month, offerings were unusually light. Resellers were demanding \$4 to \$5 premium for quick or prompt shipment while mills were offering liberal amounts for January shipment. Production was reported light due to slow demand for the main products.

Hominy feed continued firm with active demand for the unusually light offerings. At Buffalo, the mills were reported sold up and out of the market for remainder of year. Some mills were offering feed for January shipment but met with a poor demand. Mill production was light. Omaha mills were also reported sold up.

The Alfalfa meal situation was about unchanged from week ago. Demand was somewhat improved at Kansas City but the high price of Alfalfa hay was restricting trading. Only No. 2 and lower grades Alfalfa meal were offered at the market.

Pacific Coast ground feed and concentrate market strong, principally as a result of limited offerings. However, demand was somewhat easy.

STRAW AND MOSS COMPETE

The Wiemer Feed Company, of Longview, Wash., has received a shipment of pete moss from Germany, and is finding success in retailing it, instead of straw, as poultry litter. The moss is used as a substitute for straw by poultrymen, claims W. A. Wiemer, because it costs less, it is more sanitary, and prevents odor.

The moss is guaranteed for four months. After it has been in use for that period or longer, the feed company guarantees to buy it back as fertilizer at \$20 per ton.

TRADE SLOW AND PRICES HIGHER IN
NEW YORK FEED MARKET

By C. K. TRAFTON

The great irregularity in prices which had previously been an outstanding feature of the New York feed market gave way to a striking resumption of the strong upward movement during the month under review, quotations for the leading varieties showing net gains of \$1.25@5.50 per ton compared with those current a month ago. As far as the state of trade was concerned, however, there was little if any improvement. In fact, barring moderate dealings in heavy mixed feeds, there were some reports that business was even less active than it had been previously, which is particularly discouraging at this time when at least a fair trade is to be expected. While the general marking-up of prices probably had something to do with the absence of demand, there seemed to be no doubt that the filled-up condition mentioned in previous reviews was actually much more serious than supposed at the time. Many of the largest mills are still behind on their shipments and are withholding additional offers. As a consequence very few mills are in a position to take advantage of the higher prices now current even if it were found possible to sell important quantities at such levels. Only an occasional carlot of wheat feeds has been sold on the advance and spring bran is now \$4.75 higher at \$41 and standard middlings \$5.25 higher at \$41.50. Second clears are \$1.50 higher at \$46.50, or on the same basis as Red Dog. Corn goods have been in rather better demand than bran, but still inquiry was limited mainly to single carlots. Offers were decidedly scarce as many mills pulled out because of the high cost of corn. As a consequence, White Hominy is \$4.15 higher at \$43.25 and Yellow Hominy is \$5.50 higher at \$42.50. Linseed oilmeal remained lifeless on the further advance of \$2.20, which put 34 per cent meal at \$63.20. Mills reported further good export sales of oil-cake, some accumulation of oil, and scarcity of seed. Cottonseed meal buyers were still withdrawn as mills announced a further advance of \$1.25@2.35 owing to the advance in cotton and good southern sales.

They quote 36 per cent feed at \$50.25; 41 per cent at \$55, and 43 per cent at \$57.75. Some inquiry is noted for beet-pulp, but there is no foreign pulp available and only a few small lots of domestic appear to be available from second-hands at very high prices. Leading mid-western producers are offering to sell part-cars in combination with their other feeds, but only their regular agents, nothing being available for the outside trade.

FLAPPER HOGS NEED NEW FEED

Paris, Des Moines, Omaha, or whatever city it is that controls the trend in hog silhouettes, has issued a new fashion edict. No longer is the roly-poly type of hog accepted as ideal in blue-ribbon swine circles, and as a result of the rather lean and shapely model of 1928-29, those feeds which produce soft pork and excess fat are definitely out of the picture, and balanced rations which will give hogs a stylish, semi-flapper figure are in.

E. Z. Russell, official swine inspector for Kansas, explains the situation this way:

"We used to try to grow barrel-like porkers—squat, short-legged animals with a great amount of fat on them.

"Now we try to minimize the fat, mainly because this prosperous country demands high-priced pork, but also because hog fat in the last few years has met with serious competition in the vegetable fats.

"The growing use of vegetable fats, which are sold more cheaply than it is possible to sell hog fat, means that the hog today is primarily a meat animal."

MR. ACETOBUTYLICUM STEALS
FEED CORN FROM HOGS TO
MAKE FILMS, ET CETERA

Mr. Clostridium Acetobutylicum, scientifically classified as a tiny bacterium, is a small but energetic individual. Walter Wheeler, biographer of this bacterium, writes in *Farm and Fireside* that "C. A." is so small that 25,000 of him would have to line up, head to tail, to reach a distance of approximately one (1) inch. Nevertheless, it is "C. A." who has made a new cash market for 30,000 bushels of corn every day in the year—a volume of feed grain, suggests Mr. Wheeler, "the equivalent of 550,000 more 200-pound hogs."

The natural home of this bacterium, reports Mr. Wheeler, may be almost anywhere, in the slime of ponds and rivers, in the soil itself, even in growing corn. His adopted homes are at Terre Haute, Ind., and Peoria, Ill., where the Commercial Solvents Corporation has erected the factories for him to work in.

As far as may outwardly be observed, the bug works much like yeast, although he is quite something else. Yeast is a single-cell plant, while this is a much different micro-organism.

In the factory the corn flows by gravity out of the elevators. Foreign matter is removed, even to the extent of passing it over a belt under strong magnets to pick out the nails and pieces of metal that might damage the grinding machinery. The corn is ground into meal of ordinary fineness. The bran is removed and sold for feed. The germs also are taken out to be pressed into corn oil—about two pounds per bushel.

The meal is cooked and sterilized at carefully controlled temperatures. The mash is cooled again to about blood temperature and turned into huge containers 20 feet high and 20 feet in diameter. Into these, the cultures of the bacteria are introduced. Within 24 hours the mass is in full fermentation. The solvents are distilled off from the fermented mash. The process results in butanol and acetone.

The fermenting mass gives off gases. At the Peoria plant these gases are captured and piped off into big outdoor tanks to be converted into methanol, synthetic wood alcohol, the production of which by this and other processes, by the way, has seriously affected the price of the regular wood alcohol. This conversion is made under enormous pressure, some thousand of pounds to the square inch.

The culture of the bug, of course, is watched

with unceasing care. In sterile test tubes, flasks and incubators his health and happiness are nurtured tenderly. He breeds prolifically, and considers corn as the staff of life.

Thus does this tiny organism ferment no small part of our corn crop in order to make the higher alcohol solvents used in the manufacture of films, perfumes, lacquers, drugs, polishes, dyes, artificial silk and leather, and about 30 other products.

ITALY NAMES DUTY-FREE FEEDS

Duty-free importation of the following stock feeds classified as "vegetable products not specified," has been granted by an official Italian decree, according to a Department of Commerce announcement:

Meal for feeding animals, made from meal, dried fruit, millet, oilcake, cumin seed, fodders or other similar substances, mixed together or with bran; also feed meal made by mixing coarse flour or cereals with cheese or meat meal in a proportion of not more than 50 per cent. Manioc (cassava plant) flour also is on Mussolini's no-duty list.

ARTIFICIAL FEED KERNEL IS NEWEST FEED ITEM

The "cuber," a machine put on the market by an English milling machinery manufacturer is meeting with wide approval abroad from millers who wish to offer something novel in feeds to their trade. The cuber makes composition feed in cube form for poultry, pigs, and sheep, and it is claimed that the size of the artificial kernels can be varied from size to size in 10 minutes by the simple operation of changing the die.

A Chicago feed manufacturer reports success along a similar line. An all mash poultry feed, produced in granular form, is now one of the most popular items in Chapin & Company's feed list. The Chapin kernels "grow" in two sizes, one for baby chicks, and one for growing chicks. They are processed by cooking mash ingredients at a low temperature, and then compressing it under a pressure of 14,000 pounds per square foot. After the kernels are thus pressed and toasted, cod liver oil is added.

DEMAND SLOW AND ARRIVALS LIGHT IN NEW YORK HAY MARKET

By C. K. TRAFTON

Contrary to general expectations, the advance in prices for top grades of hay mentioned in our previous review failed to bring in larger quantities from the interior. In fact, receipts were light throughout the past month, and especially late in the period. There was a particular shortage of large bales and these as a consequence held firmly at last month's quotations in spite of a generally slow demand. This firmness was again especially marked in the top grades and at times choice No. 1 was almost an unknown quantity. As a consequence, buyers were forced to substitute the best selections of No. 2, so that such hay in large bales, and in some cases only fair quality No. 2, sold promptly. In fact, this description was perhaps the most active. On the other hand, with medium and poor grades still making up the bulk of the arrivals, some receivers of No. 3 hay were willing to accept \$1 less than a month ago. With demand mainly for large bales, the supply of small bales was generally in excess of the demand, so that prices for the small bales averaged \$1 to \$2 lower for the month.

Late in November the supply of large bale hay was augmented by the arrival of a river barge, but nevertheless, the better qualities found a ready market at firm prices as the bulk of the cargo was of inferior grade. In fact, some of it was very difficult to move even at especially low prices, being more or less a grassy mixture and of very poor color. The failure of interior shippers to send in more choice hay in spite of the high prices ruling convinces some experienced and conservative traders here that the shortage of such hay has become acute in some sections and that many farmers are holding on to their small supply for still higher prices. In fact, taking into account the

smaller total crop, it seems to be difficult to buy even ordinary descriptions in some places. On the other hand, with so much of the crop of poor quality, they believe that there is still an ample supply of undesirable stuff in the country. Hence they look for a further widening of the difference between choice and poor grades, the former probably advancing still further and the latter falling to lower levels. On the whole, they look for continued light arrivals as a further drop may make it unprofitable to ship poor hay, while actual shortage may restrict the shipment of top grades in spite of more attractive prices.

HOW SKIM MILK SOLIDS IMPROVE FOOD PRODUCTS

Skim milk solids in the convenient form of dry skim milk are frequently blended with flour and other materials in the making of prepared flours. Just how these skim milk solids add to the nutritional value of these products in the diet of the individual man or woman who uses them is explained simply but effectively in a booklet called "Dry Skim Milk in Institutional Cooking," recently published by the American Dry Milk Institute.

The booklet contains many interesting and little-known facts about milk. One of the most interesting is the following, which represents "What a Nickel will Buy when Spent for Dry Skim Milk:" All of the calcium; all of the phosphorus; probably all of vitamin B; three-fourths of the protein; one-fourth of the iron, and one-fourth of the total calories—needed by an adult man for a day.

Copies of the booklet may be had without cost by writing for Better Foods Bulletin 501 to the American Dry Milk Institute, 160 North La Salle Street, Chicago, Ill.

UNIFORM FEED LAWS FOR SOUTH

A campaign is now under way in the Southeastern States for securing uniform feed laws. A meeting of feed control officials was held in Birmingham, Ala., on November 27, and plans were made for presenting to the legislatures amendments to the feed laws of the various states in an endeavor to make the statutes uniform. Many difficulties are now encountered and unnecessary expense involved because of the wide variation between the statutes in force at present.

DRY MILK FREIGHT OVERCHARGE

The grain trade today not only is concerned with railroad rates on grain and its products, but with freight schedules on a score of non-grain ingredients used in balanced feeds. An award of reparation has been recommended recently by Examiner Fleming, of the Interstate Commerce Commission, in the case of the Golden State Milk Products Company and the Northwestern Pacific line.

He found that present rates on dry powdered milk from California to Texas and Arizona, are not unreasonable but that rates previously charged were excessive.

NEW FEED BRANDS

"FOS-FOR-US" stock and poultry food supplement. International Agricultural Corporation, New York, N. Y. Filed September 8, 1928. Serial No. 272,103. Published November 6, 1928.

"DUPLEX" Alfalfa meal. The Lamar Alfalfa Milling Company, Lamar, Colo. Filed September 22, 1928. Serial No. 272,818. Published November 6, 1928.

"OUR CUSTOMERS EVENTUALLY BECOME OUR FRIENDS" wheat flour, flour meal, and livestock foodstuffs. Pinnacle Mills, Morristown, Tenn. Filed June 28, 1928. Serial No. 268,808. Published November 6, 1928.

"BARK-O" dog food which consists of ground bone, cornmeal and flour. Daniel J. Driscoll, New York, N. Y. Filed March 31, 1928. Serial No. 264,089. Published November 6, 1928.

"LIGHTHOUSE" stock food, namely fish meal. Wilbur Ellis Company, San Francisco, Calif. Filed January 14, 1927. Serial No. 242,872. Published November 13, 1928.

"SUN SHINE" feed balancing preparations for livestock and poultry, including mineral supplement ration. Sun Shine Laboratories, Colony, Kan. Filed April 18, 1928. Serial No. 265,074. Published November 20, 1928.

"SCRATCH C. C. C. FEED" scratch feeds. Frank T. Caughey Company, Detroit, Mich. Filed September 18, 1928. Serial No. 272,598. Published November 20, 1928.

"JACK-RABBIT" Alfalfa meal. The Denver Alfalfa Milling & Products Company, Lamar, Colo.



Filed October 15, 1928. Serial No. 273,806. Published November 27, 1928.

"THE WORLD'S GREATEST AND CHEAPEST FAT PRODUCER" animal feeds, namely, molasses feed, sugar cottonseed feed and dairy feed. Tarkio Molasses Feed Company, Kansas City, Mo. Filed September 27, 1928. Serial No. 273,083. Published November 27, 1928.

Trademarks Registered

249,009. Oats in its natural state. Norris Grain Company, Chicago, Ill. Filed October 10, 1927. Serial No. 255,862. Published August 28, 1928. Registered November 6, 1928.

249,119. Stock feed. River Products Company, Iowa City, Iowa. Filed June 5, 1928. Serial No. 267,510. Published August 28, 1928. Registered November 6, 1928.

249,733. Feed for dairy stock. St. Albans Grain Company, St. Albans, Vt. Filed March 14, 1928. Serial No. 263,174. Published July 17, 1928. Registered November 20, 1928.

249,866. Wheat flour, cornmeal, Alfalfa molasses, horse and mule feed, mixed dairy feed, and mixed poultry feed. Ardmore Flour & Feed Company, Ardmore, Okla. Filed June 30, 1928. Serial No. 268,902. Published September 4, 1928. Registered November 20, 1928.

249,961. Stock and poultry feeds. Philip R. Park, Naval Station, San Pedro, Calif. Filed July 7, 1928. Serial No. 269,251. Published September 11, 1928. Registered November 27, 1928.

249,262. Stock and poultry feeds. Philip R. Park, Naval Station, San Pedro, Calif. Filed July 7, 1928. Serial No. 269,250. Published September 11, 1928. Registered November 27, 1928.

250,023. Horse feeds, poultry feeds, mash feeds, dairy feeds, hog feeds and stock feeds. The Corn Mills Company, East St. Louis, Ill. Filed June 7, 1928. Serial No. 267,633. Published September 11, 1928. Registered November 27, 1928.

250,107. Linseed meal. Linseed Meal Educational Committee, Milwaukee, Wis. Filed October 6, 1928. Serial No. 273,483. Registered November 27, 1928.

250,179. Wheat flour, meal, horse feed, dairy feed, stock feed and poultry feed. Arkadelphia Milling Company, Arkadelphia, Ark. Filed July 12, 1928. Serial No. 269,411. Published September 11, 1928. Registered December 4, 1928.

Labels Registered

35,032.—Title: Super Mash Starts Them.—Grows Them—Makes Them Lay. For Poultry Feed. Feeders Supply & Manufacturing Company, Kansas City, Mo. Published October 5, 1928. Registered December 4, 1928.

STOCKS of barley in store in the Western Grain Inspection Division of Canada on November 23 were 14,544,000 bushels compared with only 5,786,000 bushels on the same date last year, 6,333,000 bushels in 1926, and 9,108,000 bushels in 1925.

December 15, 1928

PROMINENT ENGINEER DIES

On November 29, occurred the death of Thomas Dwight Budd, prominent for some years as a designer and constructor of grain elevators. At the time of his death, he was chief engineer and vice-president and treasurer of the James Stewart Corporation, Chicago, Ill. Peritonitis, following an operation for appendicitis, was the cause of his demise.

Mr. Budd was born October 22, 1887, in St. Louis, Mo., and was educated in the public schools of that city, after which he went to the manual training school of Washington University of St. Louis, thus getting the regular preparatory school course in engineering under the famous Professor Woodward of Washington University. Upon completion of his preparatory work, he entered the testing laboratories conducted by the United States Government, for testing concrete and different varieties of cement. Going from there to the office of a St. Louis architect, he remained only a brief period before going to Chicago to become associated with Shepley, Rutan & Coolidge.

He studied engineering at Armour Institute and was tutored at home, providing himself with the equivalent of an engineering degree and he successfully passed the state tests for licensed struc-



THE LATE THOMAS DWIGHT BUDD

tural engineers. Following two years of his association with the last firm named, he became associated with his uncles in the firm of James Stewart & Co. Several years ago he became chief engineer for this firm and remained so until his death last month.

When the James Stewart Corporation was formed, he became vice-president and treasurer and continued to act in his capacity as chief engineer. He was married in April, 1927, to Madeline Reed, of New York City, formerly of Glencoe, Ill.; and he resided in Evanston, Ill., from his marriage until his last illness. His clubs were the Union League and the Skokie Country Club. He was a Mason and a keen devotee of the sport of Izaak Walton, as well as a splendid shot in the field.

RESEARCH IN PLANT INDUSTRIES

Continued progress in the investigation and improvement of plant production and allied industries is reflected in the annual report of the Bureau of Plant Industry of the United States Department of Agriculture. Doctor Taylor reports progress in the development of wheat varieties resistant to rust, scab and bunt diseases; oat varieties resistant to stem rust; and corn resistant to root rot. Increased attention has been given the soy bean on account of the possibilities of the crop for oil and oil meal. About 1,500 new introductions were received during the year from Manchuria and other foreign countries. From these new varieties it is hoped

to develop some that are of high oil content for use by oil mills, and others of low oil content to aid hog-feeding interests in the solution of the soft-pork problem.

Numerous other topics of interest to a wide range of plant industries are discussed in the report. They include results of investigation and study on such subjects as perfumery plants, oil and drug plants, tobacco, sugar plants, nuts, bulbs and flowers, abaca, fiber flax and hemp. A list of several hundred publications issued by bureau specialists is included in the report and serves to give a more comprehensive idea of the scope of the bureau's researches during the year.

SAMPLE ESTABLISHES GRADE

Grain contracted on the basis of a sample must be delivered equal to sample submitted. This is the decision reached by Arbitration Committee No. 6 of the Grain Dealers National Association in the case of the Barkemeyer Grain & Seed Company, Great Falls, Mont., vs. the Rathke Grain Company, Seattle, Wash., and in consequence the defendant was awarded \$103 and costs of arbitration.

The case involved the sale of a shipment of barley to the Rathke Grain Company by the Barkemeyer concern. In all communications leading up to the sale, the barley was referred to as equal to Sample 182. The Rathke company had the sample graded and in confirming the sale made notation of the grade, which was accepted by the Barkemeyer Grain & Seed Company.

When the barley arrived, however, it did not grade up to the Sample 182, indicating an error in drawing the original sample from the lot and a proper division of it when sending to the defendant. Both parties evidently were acting in good faith. The defendant made a discount for the discrepancy of barley delivered against the contract, and the discount was reasonable and in compliance with the rules of the Seattle Merchants Exchange.

The committee therefore found the case for the defendant.

TO HELP EAST'S GRAIN PORTS

Legislation and new Government policies, the exact form of which are yet to be worked out, designed to cause American export wheat to flow out of American, instead of Canadian, ports are to be suggested to Congress by William M. Jardine, Secretary of Agriculture, and grain specialists of his department.

That understanding was reached when a group of Senators representing Atlantic Coast States from Maine to North Carolina held a conference with Mr. Jardine. They agreed that the practice of exporting American wheat through Montreal is "drying up" their ports and has brought about a serious condition.

AUSTRALIAN CORN FIGURES

According to a statement issued during the month by the Market Department of the Commonwealth, the corn crop estimate for 1928 is 9,750,000 bushels, states a report from E. C. Squire, American Trade Commissioner at Sydney. The amount estimated for each state was as follows:

Queensland	5,000,000 bushels
New South Wales	4,000,000 "
Victoria	750,000 "

This is an unusually heavy crop, as the average corn crop in Australia is about 8,000,000 bushels, all of which is consumed locally. Imports average about 100,000 bushels annually, but vary according to the season's yield.

DEALER'S EQUIPMENT COPIED TO CUT FARM COSTS

A miniature model of a modern terminal elevator has been built on an Oklahoma farm. Its owner claims that the automatic handling which it will provide for his feeding operations, will allow

the same economy of effort which the grain dealer enjoys.

John M. Fuser, stockman-farmer who has built the elevator, has won distinction as an explorer in farm management. Starting with a capital of \$500 in 1908, and specializing in production rather than in marketing, Fuser now has assets of over \$100,000. His feed will be kept in better condition in the new 10,000-bushel elevator than elsewhere, he believes, and will greatly speed up the feeding operations.

U. S. OFFERS DUST EXPLOSION EXHIBIT

Among the exhibits at the Sherman Hotel, Chicago, December 10 to 12, during the convention of the American Farm Federation Bureau, was the dust explosion booth, provided by the United States Department of Agriculture. This booth was shown for the first time in the Middle West on this occasion. An illuminated picture was arranged so that at first the spectators would see the original elevator in its completed form. By manipulation of lighting effects, the elevator suddenly is shown in flames and the dust explosion is occurring. The scene changes for a third time, to show the damage done by the accident and the ruins left after the explosion and fire have expended themselves. Surrounding the booth were signs warning against the most common causes of dust explosions and brief



BOOTH DEMONSTRATING EXPLOSION HAZARD

comments on safety measures. The booth was installed at the direction of David J. Price, engineer in charge of chemical and technological research, in the Bureau of Chemistry and Soils, and the demonstration was in charge of W. A. Noel.

TRADE NOTES

The Hutchinson Feed & Milling Company of McAlester, Okla. (P. O. Box 113), is desirous of having catalogs of feed mixers sent to them. We hope the manufacturers of such equipment will see that they get them.

In the December issue of the *Harvester World*, the dealers' paper of the International Harvester Company of Chicago, another instance of the sturdiness and dependability of the International truck is cited: Carrying a 5½-ton load to the 1,000-foot heights above the city of Portland, Ore., a job that other trucks refused to consider.

The Hess Warming & Ventilating Company of Chicago, reports that it is far less difficult to convince elevator operators of the money making possibilities in grain driers than it used to be. In fact a terminal elevator that serves as anything more than a transit house, can hardly get along without one. Hess Driers have recently been installed by the New York Central Railroad Export Elevator, Weehawken, N. J.; the Quaker Oats Company at St. Joseph, Mo.; the St. Joseph (Mo.) Public Elevator Company; Illinois Central Railroad Elevator at Omaha, Neb.; J. J. Mullaney Grain Company at Sioux City, Iowa; and a large export elevator at Buenos Aires, Argentina.

ASSOCIATIONS

CONVENTION CALENDAR

December 18.—Business meeting of the Farm Seed Association of North America, at the Stevens Hotel, Chicago, Ill.

December 20.—Second annual meeting of the New England Retail Grain Dealers Association, at the Hotel Statler, Boston, Mass.

January 23-25, 1929.—Silver anniversary convention of the Iowa Farmers Grain Dealers Association, at Fort Dodge, Iowa.

February 5-7.—Annual meeting of the Farmers Grain Dealers Association of Illinois, at Joliet, Ill.

February 5-7.—Eighteenth annual convention of the North Dakota Farmers Grain Dealers Association, at Fargo, N. D.

February 13-14.—Annual meeting of the Indiana Farmers Grain Dealers Association (place to be announced later).

February 19-20.—Semi-annual meeting of the Eastern Federation of Feed Merchants, at Binghamton, N. Y.

February 19-21.—Minnesota Farmers Elevator Association, Hotel West, Minneapolis, Minn.

February 19-21.—Annual meeting of the Ohio Farmers Grain Dealers Association (place to be announced later).

October 14, 15, 16.—Thirty-third annual convention of the Grain Dealers National Association, at Hotel Pere Marquette, Peoria, Ill.

October 14-16.—Annual meeting of the Terminal Grain Weighmasters National Association, at the Hotel Pere Marquette, Peoria, Ill.

October 14-16.—Annual meeting of the Chief Grain Inspectors National Association, at the Hotel Pere Marquette, Peoria, Ill.

OHIO DEALERS PLAN CRUISE IN JUNE

The fiftieth annual meeting of the Ohio Grain Dealers Association is being planned for next June, and it has been suggested that this meeting be held on a vessel which will accommodate 500 people. The proposed cruise is a two-day trip to Mackinac Island and return. The entire expense has been estimated at about \$30 per person, or possibly a little less. This includes fare, berth, meals and there will be nothing else to buy on the trip. The ship will be reserved entirely to members of the association and their families, and Secretary W. W. Cummings writes, "We insist that the boys bring their wives when possible, as there will be plenty of entertainment for all. There will be an orchestra on board for dancing and concerts and short meetings will be held on the boat when it will not interfere with other attractions."

The trip through the Detroit River and St. Clair Flats is a beautiful one. The means of entertainment are numerous and the facilities will be adequate for having an excellent time. To make this trip possible, the officials must know at once how many would desire to make the trip so that arrangements can be made. Those who are interested are, therefore, requested to send a card to Mr. Cummings, 308 Second National Bank Building, Toledo, Ohio, and specify how many are to be included in the reservation—whether the member will be accompanied by wife or friends or other members of the family.

SOUTHWEST HOLDS WHEAT CONFERENCE

By MERRYL SCHWIND

The basis for a comprehensive research program to check the threatened deterioration in quality of the wheat of the Southwest was arrived at at a conference of more than 175 wheat growers, millers, baking company representatives, agricultural experts and representatives of farm organizations, held at the Kansas State Agricultural College on November 8. The meeting was called by President F. D. Farrell of the college, who stressed the fact that there is good evidence that the protein quality of Hard Winter wheat in this territory is not as high as it was 15 or 20 years ago, and that the use of the combine has accentuated losses from lodging, shattering and heat damage, and increased the importance of storage and credit facilities. President Farrell sounded the keynote of the meeting, when he said that many methods of alleviating the difficulties have been proposed and that their successful application depends largely on adequate

research to determine the underlying causes before attempting to prescribe remedies.

The delegations from Kansas, Colorado, Oklahoma, Texas and Nebraska heard it forcibly stated that there has been lowered quality and yield per acre in recent years in the Southwest, the highest yields being chiefly confined to the newer lands while the older acreages are showing the effects of raising wheat by general soil deterioration.

The growers stressed the inadequate marketing system under which the producers do not receive the full value of the protein content of the wheat they sell. President Farrell emphasized the fact that Canada constitutes the principal competition for the Southwest in the world market. Canada has an advantage of virgin soils and is therefore able to produce wheat fully equal to and sometimes superior to our Winter wheat in protein content and purity. Such a situation makes it imperative for the wheat interests to coordinate problems of production and marketing to insure the quality of wheat in President Farrell's opinion.

Two important committees were appointed to put the research program immediately under way. The Research Program Committee recommended the creation of a Southwestern Wheat Research Committee, consisting of representatives from the allied interests, experiment stations of the five states represented, and the United States Department of Agriculture. This recommendation was adopted by the conference board and Dr. L. E. Call, dean of agriculture of the K. S. A. C. was made chairman. A Finance Committee, of which Carl Williams of Oklahoma City was named chairman, recommended that the sum of \$150,000 be added to the appropriations of the United States Department of Agriculture for the fiscal year 1929-1930 to be expended for research work in problems of Hard Red Winter wheat with special reference to improvement in quality, productiveness, disease resistance and to the economic status of the wheat industry of the Southwest.

The program was devoted to papers on various phases of research work. "What a Wheat Research Program Will Mean to the Wheat Farmer" was the subject of a talk by E. H. Hodgman, a farmer of Little River. He spoke of the new problems arising from the use of the combine, and urged better machinery for handling grain under adverse weather conditions. The farmers' biggest need as he sees it is price stabilization. H. M. Bainer, director of the Southwestern Wheat Improvement Association, spoke against the growing tendency among the southwestern farmers to raise black hull wheat, which he says is not well adapted over wide areas and is not generally sought by the milling and baking trade because of lack of dependability of its quality of protein. He said that any program for research into the wheat problem would have the active support of the mills and bakers.

C. M. Hardenbergh, president of the Southwestern Milling Company, Kansas City, stated that high or low percentage of protein in wheat is not a measure of milling value of grain, rather it is the quality of the protein content which is the determining factor in the utility of the wheat purchased by mills.

TRAFFIC LEAGUE CONSIDERS GRAIN PROBLEMS

When the annual meeting of the National Industrial Traffic League was held at the Hotel Astor, New York, November 22, a number of matters of interest to grain dealers came up for consideration. J. S. Brown, manager of the Transportation Department of the Board of Trade of Chicago, who is chairman of the Car Demurrage and Storage Committee, made a report, in which he said in part:

The following changes in the National Car Demurrage Rules and Charges have been considered by your committee and have been discussed in joint conference with the Committee on Demurrage and Storage of the American Railway Association: (Words in bold face are additions or changes proposed by A. R. A. Committee.)

3. When a car placed for loading or unloading whether or not partly loaded or unloaded at point where so placed, is moved by railroad or private power to another point within the confines of the same industry or the same public delivery yard to completely load or unload forty-eight (48) hours will be allowed for the entire transaction. When this railroad makes a charge for the movement any time during which the consignor or consignee has been deprived of an opportunity to load or unload, intervening between the receipt of the order and the subsequent placement of the car will be added to the free time.

Note.—Movements made under this paragraph will not be considered as reconsignments for the purpose of applying demurrage rules.

Your committee has rejected the proposed Note and

has submitted to the American Railway Association committee for its consideration the following substitute, Rule 2-A-3:

"When a car placed for loading or unloading, whether or not partly loaded or unloaded at point where so placed, is moved by railroad or private power to another point within the confines of the same industry or the same public delivery yard to completely load or unload, forty-eight (48) hours free time will be allowed for the entire transaction. When this railroad makes a charge for the movement the time intervening between the receipt of the order and the subsequent placement of the car will be added to the free time." No action as yet on your committee's proposal.

Demurrage Rule 3-B-1.—Proposed by A. R. A. committee.

Section B-1.—On cars held for orders (other than orders for actual placement of cars subject to Sections D and E of this Rule) and on cars requiring surrender of bill of lading or payment of lawful charges whether such cars have been placed in position to unload or not, time will be computed from the first 7:00 a. m. after the day on which notice of arrival is sent or given to the consignee or party entitled to receive same. (See Rule 4—Notification.)

Note.—When a car for unloading is not placed on the next regular switch after receipt of order for placement, surrender of bill of lading and/or payment of lawful charges, the time between receipt of order and placement of car will be added to the free time; if the car is placed on the next regular switch no allowance will be made.

The American Railway Association Committee has been urging for some time favorable action by the League upon the above proposed Rule 3-B-1. At the last joint conference your committee agreed to recommend acceptance of the proposed rule, but not the proposed note. Since this is not satisfactory to the American Railway Association Committee, and as there is no likelihood of the two committees being able to agree upon a rule satisfactory to both, it was decided to refer the matter jointly to the Interstate Commerce Commission for arbitration. This has not yet been done.

Demurrage Rule 4E.—Proposed by A. R. A. Committee.

1. Except as otherwise provided in Note 1, when carload freight is refused at destination, this railroad shall, within 24 hours after being advised of refusal, send notice of such refusal by wire to the consignor or owner when known, at his expense, or when not known to the agent at point of shipment, who shall promptly notify the consignor, if known.

2. (a) Except as otherwise provided in Note 1, when unclaimed (see Note 2) perishable carload freight has not been disposed of by this railroad and remains on hand undelivered at the expiration of three (3) days from the first 7:00 a. m. after the day on which notice of arrival has been sent or given to the consignee or party entitled to receive same, a notice to that effect shall within twenty-four (24) hours thereafter, be sent by wire to the consignor or owner when known at his expense or, when not known to the agent at point of shipment, who shall promptly notify the consignor if known.

(b) When non-perishable carload freight is unclaimed (see Note 2) at the expiration of five (5) days from the first 7:00 a. m. after the day on which notice of arrival has been sent or given to the consignee or party entitled to receive same, a notice to that effect shall be sent as provided in Paragraph 2 (a) of this section.

Note 1.—Notice to the consignor as provided in paragraphs 1, 2 (a) and/or 2 (b) of this section, shall not be sent when this railroad or the initial road haul carrier has been advised by the consignor in writing that such notice is not desired or when consignor or owner has been previously sent or given a notice that car is being held at destination for disposition instructions.

Note 2.—Carload freight shall not be considered unclaimed under the following circumstances:

(a) Shipments covered by straight bills of lading.

1. When delivered on other than public delivery tracks.

2. When the consignee or party entitled to receive the freight has paid the freight charges at destination.

3. When the consignee or party entitled to receive the freight has ordered in writing the car either to be held or placed for unloading.

4. When the consignee or party entitled to receive the freight has demanded delivery of the freight writing, or signified in writing his acceptance of it.

(b) Shipments covered by to-order bills of lading.

When the bills of lading have been surrendered or indemnity bond furnished in lieu thereof.

This rule has been before the joint conference of the League and the American Railway Association Committees for the last seven years. The American Railway Association Committee reports that many of the carriers are dissatisfied with the present rule, but the changes so far proposed by the American Railway Association Committee have not been acceptable to the League. Therefore, the controversy has been submitted to the Interstate Commerce Commission on two occasions, the last time in October, 1926, when the chairmen of both committees submitted their arguments in writing. Subsequently, the committee of the Interstate Commerce Commission, which arbitrated the controversy, recommended the rule appearing under the heading "Proposed by Interstate Commerce Commission Committee." That committee's recommendation is not satisfactory to either your committee or the American Railway Association Committee.

Your committee's principal objection is to paragraph 5 of Note 2, under which constructively placed cars would not be considered unclaimed if consignee had paid freight charges.

Your committee suggested that the wording of paragraph 5 be changed to read: "When constructively placed on other than public delivery tracks where consignee or party entitled to receive freight has complied with either paragraphs 3 and/or 4 next preceding."

Your committee's objection to the rule proposed by the Interstate Commerce Commission Committee is that many consignees pay freight charges before the cars are placed for unloading, and that in some cases cars on which the charges have been paid are subsequently rejected. In cases of this kind cars so constructively placed would not under the Interstate Commerce Commission rule be considered as unclaimed.

The American Railway Association Committee is not satisfied with paragraphs 1 and 5 of Note 2, suggested by the Interstate Commerce Commission Committee, and has proposed that paragraph 5 be eliminated and paragraph 1 be changed to read:

"When actually or constructively placed on other

than public delivery tracks or on industrial interchange tracks."

Demurrage Rule 8-D-4.—The American Railway Association Committee, in order to give effect to its compromise Rule 4-E, has proposed the following Demurrage Rule 8-D-4, which proposal your committee has not approved.

Proposed by American Railway Association Committee.—In case of failure by this railroad to send notice in accordance with the provisions of Rule 4, Section E, the consignor shall not be held liable for demurrage charges between the date the notice should have been sent and the date it was actually sent. In the event the consignor is notified in some other manner, he shall be absolved from demurrage only between the date the notice should have been sent, in accordance with the provisions of Rule 4, Section E, and the date he was otherwise notified.

A notice of a refused or unclaimed shipment sent or given consignor's representative authorized to furnish disposition orders shall be considered as notice sent or given to the consignor.

Claims for refund of demurrage charges must be supported by satisfactory evidence that the charges, if collected, were borne by the consignor.

Demurrage Rule 4-A.—This rule provides that a notice of arrival shall be sent or given consignee or party entitled to receive same in writing or, in lieu thereof, as otherwise agreed to by the railroad and consignee.

The American Railway Association Committee has reported that some controversies have arisen in cases where consignees have agreed to accept notice by telephone or by messenger in lieu of mailed notice of arrival where such consignees could not be reached by telephone or messenger, and that committee has suggested that the following form of agreement between railroad companies and consignees covering other than written notice of arrival of freight be approved by your committee.

(Name of Consignee) hereby agrees, until further notice in writing, to accept notice (by telephone, orally, or by messenger) of the arrival of freight, as the equivalent to written notice on this railroad's standard form. It is further agreed that the written notice shall be sent by U. S. mail when the party to be notified cannot be reached in the manner agreed to herein, this agreement for other than written notice being invalid in respect to such mailed notice.

Your committee recommends that the League approve the amended form.

Demurrage Rule 2-B-1.—Because of complaints from members of the League that 24 hours on reshipped cars is insufficient free time, your committee has requested the American Railway Association Committee to change the rule so as to allow 48 hours free time, it being our position that the reshipping of a car under load conserves equipment and saves the railroad the expense involved in additional time required to unload and reload, and that while it is true the shipper also saves labor and expense, he contributes to transportation efficiency by utilizing car space to the advantage of the railroad, and his contribution should be given greater consideration than is accorded under the present rule.

Our request has been taken under consideration by the American Railway Association Committee.

Another report of interest to the grain trade was made by W. R. Scott, secretary of the Kansas City Board of Trade, chairman of the Bill of Lading Committee. The following recommendation of his was adopted without opposition:

At the last annual meeting of the League, the Bill of Lading Committee was directed to continue negotiations with the carriers concerning the matter of executing the "no-recourse" clause on prepaid bills of lading. Considerable correspondence has been exchanged with Messrs. Collyer and Morris in an endeavor to secure a conference on this subject, but it has not been feasible to arrange a conference up to this time. However, the matter will be pressed as much as possible.

At the last annual meeting of the League the Bill of Lading Committee was instructed to pursue this subject actively with the carriers in an effort to reach an agreement upon the revision of the terms of the bill of lading made necessary by the passage of the Newton Bill. The result of the negotiations with the carriers following these instructions has been given in detail by the executive secretary in several circulars, the last being Circular No. 1089. An agreement was reached with the carriers which required further modification of the law and the matter is now in the hands of the Legislative Committee for that purpose. We understand that the matter will be discussed in the report of that committee.

The matter of obtaining new supplies of bill of lading forms in view of the pendency of these negotiations is also fully covered in Circular 1089 issued by the executive secretary.

No. 4844 has been reopened by the Commission for the purpose of considering a revision of the export bill of lading terms in connection with the York-Antwerp rules. As this matter has been committed to a special committee it has not been dealt with by the Bill of Lading Committee.

Shipments covered by straight bills of lading, consigned to one party with instructions to notify another, etc.: This matter at one time referred to the Bill of Lading Committee for suggestion, is now in the hands of the Diversion and Reconsignment Committee, and no further action has been taken by the Bill of Lading Committee.

NEW ENGLAND MEETING PLANNED

The second annual meeting of the New England Retail Grain Dealers Association, which will be held Thursday, December 20, with headquarters at the Hotel Statler, Boston, Mass., will be exclusively a business session. Opening at 10 o'clock in the morning, the meeting will proceed with the customary annual reports of officers and committees, after which there will be discussions of pertinent matters. The annual banquet will take place that evening.

All grain dealers and feed merchants in New England are cordially invited to attend the session, regardless of whether they are members of the association or not. There will be much on the program of value to them.

NEBRASKA FARMER DEALERS MEET

The Nebraska Farmers Elevator Association held its annual meeting at the Rome Hotel, Omaha, Neb., on October 30, and the following officers were elected for the ensuing year: President, M. L. Crandell, Nebraska City; vice-president, E. M. Olds, Dorchester; directors, A. E. Hoare, Monroe; S. G. Manning, Exeter. The secretary of the Managers' Association, according to the by-laws, is the secretary elect of the Farmers Elevator Association. Later in the session of this association Mr. Shorthill also becomes the secretary of the Managers' Association.

TRANSPORTATION

HARVEST FROM 22,900 ACRES PUT ABOARD SINGLE SHIP

The Canadian steamship, *Le Moyne*, recently was loaded with 550,000 bushels of wheat bound from Fort William to Port Colborne.

Assuming a 25-bushel per acre yield, this cargo represents the production from 35 square miles of Dominion prairie or 22,900 acres.

HAY HEARINGS ASSIGNED

The schedule of hay rate hearings at which testimony for and against a readjustment of railroad rates on hay and straw will be heard, was announced on December 11. On January 17, the new series of hearings will begin in El Paso, Texas.

Phoenix, Ariz., is slated for January 23; Los Angeles, Calif., for January 28; San Francisco, Calif., for February 1; Salt Lake City, Utah, for February 7, 1929.

APPEAL TO JARDINE FOR WHEAT AND FLOUR RATE EQUALIZATION

An appeal to Secretary of Agriculture Jardine has been sent this month from the Southwestern Millers League, arguing that there should be brought about an "equitable differential" between ocean rates on wheat and flour. Reference is made to the five-cent differential in ocean rates established by the first shipping board, and to the present discriminating margin of 10 to 15 cents on flour as against wheat.

SOO LOCKS CLOSED

The last of the Great Lakes grain fleet has plowed through the wintry waters around the Soo channels, carrying the season's final shipments of cereals for the lower lake ports. Snowstorms were reported from the Soo, and storm warnings were posted as early as December 1, when several large freighters were downbound with grain.

Although marine insurance on the lakes expired at midnight, Friday, November 30, numerous grain vessels obtained extensions that permitted them to sail as late as December 12, when the Soo locks closed.

DRAFT SHIPS FOR WINTER STORAGE

The Western Maryland Railway has chartered 20 cargo vessels of the United States Shipping Board, to be used at the port of Baltimore for the storing of grain, the board has announced.

Some time ago the road applied to the board to charter a number of vessels for storing grain at its Baltimore terminal to relieve what was said to be a serious situation confronting the railroad due to the shortage of grain storage facilities.

The vessels to be turned over to the road are not in use for any other purpose, the board said. The period over which the charter arrangement will continue will be from six to twelve months.

The hire for the first five vessels will be at the rate of \$4,500 per month. From the sixth to tenth ship, inclusive, an additional \$340 per month per ship will be paid.

CANADIAN BASIS FOR GRAIN RATES FOUND TO BE UNADAPTABLE TO THE UNITED STATES

In a report to the Senate, in response to Senate Resolution No. 250, the Interstate Commerce Commission has presented its conclusion that a reduction in railroad freight rates on grain in the Northwest to the Canadian basis is not warranted.

Conditions in Canada, where railroad taxes are reduced to a minimum and deficiencies in operating revenues of the Canadian National Railways are borne by the government, are not comparable, says the report with conditions in the United States. The Commission states that, at this time, it is unable to find that rates on the Canadian basis would be compensatory to the railroads of the Northwest.

Cost of rail service is not the basis of grain rates in Canada, the commission declares.

THE GRAIN WORLD

THE 1928 production of corn in 16 countries, which last year raised 90 per cent of the Northern Hemisphere crop exclusive of Russia, remains unchanged at 3,336,571,000 bushels, or 1 per cent more than the production of the same countries last year.

TOTAL exports of corn from the United States, the Danubian countries, Argentina, and the Union of South Africa so far as reported since November 1 have amounted to 18,410,000 bushels compared with 22,580,000 bushels for the same periods last year. The United States export of 350,000 bushels of corn during the week ended November 23 was the largest weekly export, with one exception, since May 5. The Argentine export of 3,853,000 bushels for that week was the smallest, with two exceptions, since April 21.

THE total barley production in 36 countries, which last year raised 81 per cent of the Northern Hemisphere crop exclusive of Russia and China, now amounts to 1,381,420,000 bushels, an increase of 15.5 per cent above the production for the same countries in 1927.

THE total oats production in 30 countries, which last year raised nearly 90 per cent of the world crop exclusive of Russia and China, remains at 3,530,655,000 bushels, an increase of 9.5 per cent over that for the same countries last year. The increase in the 22 European countries reported, however, is only 2.1 per cent above that of last year.

THE 1928 rye production in 24 countries is reported at 891,719,000 bushels against 843,488,000 bushels in 1927, when these countries represented 95 per cent of the estimated world production outside of Russia and China. These totals remain the same as given in the previous report, no new estimates or revisions of previous estimates having been received.

TOTAL receipts at Fort William, Port Arthur and Vancouver from August 1 to November 23 have amounted to 202,105,000 bushels against 133,389,000 bushels during the same period last year. Shipments from these points have amounted to 184,731,000 bushels against 131,976,000 bushels last year.

THE exports of wheat from the principal exporting countries for the season since July 1 have been about 36,000,000 bushels greater than for the corresponding period last season. Exports for the week ended November 24 were about 3,000,000 bushels less than the previous week, the Danubian countries being the only countries to show an increase.

THE condition of fall wheat on November 1 in Canada was 101 per cent of the average condition as of that date during the past 10 years against 103 per cent on November 1, 1927.

THE total production of 24 European countries which last year represented about 98 per cent of the total European wheat crop is 1,345,668,000 bushels against 1,237,178,000 bushels in 1927.

GRAIN TRADE PATENTS

Bearing Date of November 6, 1928

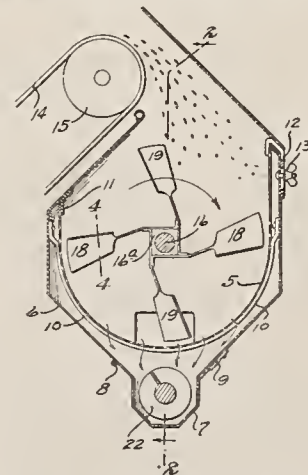
Grain separator.—Clarence W. Carter, Minneapolis, Minn. Filed January 27, 1927. No. 1,690,529. See cut.

Claim: A separator of the kind described comprising a sieve and propelling means operative to propel the stock against the sieve with a to and fro movement in a circular path greater in one direction than in the other so that the stock is given a resultant progressive flow in a given direction.

Apparatus for removing grain doors.—Andrew Westling, Minneapolis, Minn., assignor to Concrete Elevator Company, Minneapolis, Minn., a corporation of Minnesota. Filed January 6 1928. No. 1,690,262.

Bearing Date of November 16, 1928

Grain and seed cleaner.—John H. Penny, Fountain City, Ind. Filed March 5, 1927. No. 1,691,902.



FIELD SEEDS

NEBRASKA SEED MEN ORGANIZE

Seed dealers from a number of Nebraska towns met at Lincoln, Neb., recently and formed the Nebraska Seed Dealers Association. E. S. Gunn, of Lincoln, was elected president; E. Sonderegger, Beatrice, secretary-treasurer.

COLORADO SEED DEALERS MEET

The Colorado Seedsmen's Association held its seventh annual meeting on November 21 at Denver, Colo., concurrently with the Colorado Pure Seed Show. The show was sponsored by the extension department of the Colorado Agricultural College and the Colorado Pure Seed Growers Association.

NEW SEED OFFICERS

At the recent meeting of the Wisconsin Seed Dealers Association, Hugo Teweles of the L. Teweles Seed Company, Milwaukee, Wis., was elected president. Peter Carr of the L. L. Olds Seed Company, Madison, Wis., is the new vice-president and H. B. Courteen of the Courteen Seed Company, Milwaukee, secretary and treasurer.

SEED DEALERS HOLD INTERESTING MEET

A good attendance and lively interest marked the twenty-ninth annual convention of the Western Seedsmen's Association, held on November 24 at Kansas City, Mo.

Professor Stewart of the Nebraska Agricultural College gave an address at the morning session and in the afternoon there was a general discussion of garden seed topics.

ANALYSTS TO MEET

The Association of Official Seed Analysts will meet on December 31 and January 1 and 2 at Macy Hall, Teachers' College, Columbia University, New York City.

E. H. Toole, Seed Laboratory, U. S. D. A., Washington, D. C., is president; Miss Bess Cowley, Richmond, Va., vice-president; A. L. Stone, Madison, Wis., secretary-treasurer.

Addresses scheduled for this meeting are: "Reasonable Tolerance for Minor Impurities in Seed Testing," by W. D. Hay; "Changes in the Weight Percentage Composition of Seed Samples Under Laboratory Conditions," by Ellen P. Emack; and "Problems Encountered in Analyzing Orchard Grass Seed," by Mary Woodbridge.

BULK OF REDTOP SEED SOLD;
PRICES LOWER

Although the bulk of the Red Top seed crop had already been sold, growers continued to sell the remaining portion freely during the four weeks ended November 13. The United States Bureau of Agricultural Economics estimates that 90 per cent to 95 per cent had been sold up to that date, compared with 85 per cent to 90 per cent a month ago. Movement of the crop this year has been somewhat faster than a year ago.

Prices to growers declined about one-half cent per pound during the month. On November 14 prices to growers ranged mostly 11 cents to 14 cents and averaged 12½ cents per pound, basis clean seed, or the same as two months ago, compared with 13 cents a month ago, 11 cents three months ago and 10¼ cents a year ago. Prices paid for the crop this year were higher than for the 1927 crop, but lower than for the crop of 1925 and 1926.

SUDAN GRASS MOVING AT HIGHER PRICES

Movement of Sudan grass seed from the hands of growers was at about the same rate as that of last year but slightly slower than two years ago. The United States Bureau of Agricultural Economics estimates that about 30 per cent of the crop had been sold by growers up to November 13 this year, last year, and three years ago. Two years ago about 50 per cent had been sold. In general, growers did not sell freely and in some districts were busily engaged with other work.

As usually is the case, the greatest movement occurred in the Texas Panhandle where about 35 per cent of the crop had been sold this year as well as last year. However, there was more of a tendency this fall for growers to hold for higher prices. Movement was delayed to some extent by the fact that growers were busy with other

crops. In Oklahoma and New Mexico 20 per cent to 25 per cent had been sold. In the Kansas districts movement was spotted and somewhat slower.

Prices paid to growers in the important districts were about 45 cents higher on November 13 than six weeks earlier and averaged on that date about \$2.90 per 100 pounds, basis clean seed, compared with \$2.50 last year. For the important districts, prices were paid as follows: Western Texas, \$2.60; western Oklahoma, \$3.65; northwestern Kansas, \$3.20; northeastern Kansas, \$3; southwestern Kansas, \$2.75; southeastern Nebraska, \$3.30; north central California, \$4.

IMPORTS OF FORAGE PLANT SEEDS

This is from the report of the Seed Laboratory of the Bureau of Plant Industry.

Permitted Entry Into the United States Under the Federal Seed Act

Kind of Seed	November 1925			July 1, 1925	
	Pounds	Pounds		30, 1925	30, 1927
Alfalfa	64,200	26,400	(a)	197,300	386,900
Bluegrass, Canada	83,600	149,300	(b)	353,300	295,200
Bromegrass, awnless			(b)	100	
Clover, alsike	415,300	1,075,900	(b)	873,200	1,840,400
Clover, crimson	54,200	71,300	(c)	2,806,100	1,242,800
Clover, red	204,400		(d)	512,800	
Clover, white	296,000	125,500	(e)	902,400	295,500
Millet, foxtail	30,100		(e)	60,200	
Mixtures, clover	4,100		(b)*	8,200	900
Mixtures, grass			(f)	1,100	
Orchard grass	679,000		(g)	1,165,800	124,000
Rape	1,083,100	908,500	(h)	3,268,700	3,133,600
Ryegrass, English	164,600	57,200	(i)	383,300	253,300
Ryegrass, Italian	41,400	33,000	(j)	218,200	348,100
Timothy					21,500
Vetch, hairy	256,300	285,500	(k)	2,171,600	1,226,400
Vetch, spring		45,400			435,400

Not Subject to the Federal Seed Act

Bentgrass	73,900	54,400	194,900	190,900
Clover, biennial white-flowered				
sweet	156,200	17,200	167,600	538,500
Clover, biennial yellow-flowered				
sweet			3,800	38,200
Dog's tail, crested	8,900	2,200	44,900	36,700
Fescue, chewings	15,700	38,600	969,000	732,000
Fescue, other	88,100	17,600	292,700	114,600
Grass, annual meadow	2,600		7,100	500
Grass, carpet			3,300	11,200
Grass, yellow cat			100	
Grass, Rhodes			100	10,000
Grass, rough-stalked				
Grass, meadow	38,100	27,600	168,900	71,900
Grass, tall oat		10,800		11,800
Grass, velvet				5,200
Grass, wood meadow	1,500	5,400	3,600	10,100
Millet, Japanese	20,000		20,000	
Paspalum, tall		1,000	5,400	2,100
Sulla	100		100	
Serradella				3,300
Yarrow		100		200

(a) 110,000 pounds from Estonia (of Turkestan origin); 33,600 pounds from Argentina; 30,600 pounds from Germany (of Turkestan origin); 23,100 pounds from Canada. 40,900 pounds of alfalfa seed to be permitted after staining—not included. (b) All from Canada. (c) 2,318,600 lbs. from France; 361,500 pounds from Hungary; 102,500 pounds from Germany; 21,500 pounds from Czechoslovakia. (d) 138,600 pounds from England (43,900 pounds of Russian origin, 17,100 pounds American goods returned); 128,700 pounds from Poland; 110,200 pounds from Russia; 64,300 pounds from Estonia (of Russian origin); 38,300 pounds from Canada (38,100 pounds American goods returned); 32,700 pounds from France. 519,300 pounds Red Clover seed to be permitted entry after staining—not included. (e) 469,800 pounds from Germany; 393,000 pounds from Poland; 39,600 pounds from England. (f) From England. (g) 1,009,700 pounds from Denmark; 156,100 pounds from Germany. (h) 2,447,500 pounds from Holland; 504,000 pounds from Japan; 161,600 pounds from Germany; 142,500 pounds from France; 13,100 pounds from Hungary. (i) 138,000 pounds from New Zealand; 220,900 pounds from Ireland; 20,000 pounds from Denmark; 4,400 pounds from Scotland. (j) 115,300 pounds from New Zealand; 43,700 pounds from Ireland; 37,000 pounds from Denmark; 22,200 pounds from Scotland. (k) 977,100 pounds from Germany; 555,100 pounds from Hungary; 360,200 pounds from Latvia; 130,500 pounds from Czechoslovakia; 76,800 pounds from Poland; 71,100 pounds from Sweden; 800 pounds from England. *2,900 pounds Mixed Clover seed to be permitted entry after staining—not included.

SEASONAL DULLNESS PREVAILS IN
NEW YORK SEED MARKET

By C. K. TRAFTON

During the early part of the period under review, business in seeds in the New York market became slightly more active and a somewhat more cheerful feeling prevailed. Before long, however, trading became increasingly slow and toward the last conditions were fully as stagnant as they are usually expected during the year's dullest season. As far as prices are concerned, the situation has been somewhat unsettled. It is felt that the high rates ruling for money may not only serve to restrict buying at current high prices, but may also render holders more willing to shade prices in order to lighten their burden to some extent. Evi-

dently some of them would prefer to avoid heavy carrying charges by moving some of their supply now even though they confidently believe that the lack of burdensome supplies, if not an actual scarcity as far as some items are concerned, will carry prices to still higher levels when the usual spring demand develops.

Red Clover was inactive throughout the month. The total arrivals from Europe were about 3,240 bags compared with nil for the preceding month. Moreover, distributors receiving these arrivals appeared to be somewhat uncertain as to their ability to move the seed freely and as a consequence the price was lowered ½ cent or to 23 cents duty-paid. In spite of this 10-cent discount buyers showed little interest in the foreign seed, possibly because they are counting on a more advantageous buying basis later on, believing that European shippers may shade their present c. i. f. basis of 16@16½ cents.

Alfalfa remained firm during the month in spite of continued quietude and the basis for domestic seed was advanced ½ cent to 26 cents. Imported seed was still quoted at 19½@20 cents, but the tone was somewhat easier as holders seemed to be less certain about the demand for stained seed. For this reason importers showed little interest in additional offers from Argentina at 14@15 cents c. i. f. Additional arrivals from that country were 295 bags.

Timothy developed more firmness during the month, advancing ¼ cent to the previous 6½ cents basis. This was largely owing to more definite indications that farmers generally were holding firmly for higher prices, while in some parts of the interior it was quite evident that supplies were well cleaned up. In addition, export business picked up slightly as the month progressed which will probably be reflected in larger clearances next month. The total for the past month was only about 720 bags, compared with about 3,900 for the preceding period.

Fancy Kentucky Bluegrass was inactive, but hopes of a better export demand in the future, coupled with continued firmness in the interior, caused an advance of 1½ cents in the spot basis; 21-pound seed being quoted at 30 cents and 19-pound seed at 29 cents. There were no exports.

White Clover was inactive and nominally unchanged at 27 cents with foreign arrivals of only 300 bags, against about 860 for the preceding month.

CORN AT \$250 A BUSHEL!

At the National Corn Show Roscoe Powell of Browning, Mo., won the grand champion prize with a bushel consisting of 70 ears of corn. The Corneli Seed Company of St. Louis, Mo., saw it and bought it for \$250. The corn is Reid's yellow dent. It will be marketed through the St. Louis seed firm.

There were over 200 exhibitors competing for the grand champion prize, with between 500 and 600 exhibits entered, representing, leading corn producing states.


ALFALFA SEED CROP SOMEWHAT
SMALLER THAN WAS EXPECTED

Alfalfa seed production is now indicated to be 15 to 20 per cent smaller than was expected about September 25. At that time it was estimated by the United States Bureau of Agricultural Economics that the crop would be about 65 per cent of the 1927 crop. Reports recently received from growers who had previously (about September 25) furnished information regarding the acreage they intended to cut for seed and the estimated yield per acre indicate that they actually cut nearly 13 per cent fewer acres than they had intended to cut and that the yield per acre averaged about 7 per cent less than they had estimated. The yield per acre for the country as a whole, based on these growers' reports, was 145 pounds, compared with 205 last year.


In view of the fact that many growers had not started to thresh up to the time of the September inquiry, their estimates of expected yields now appear to have been unusually close (within 7 per cent of actual yields). In a few sections, notably in the Dakotas, grasshoppers did considerable damage after the crop was cut and in scattered districts heavy rains reduced yields somewhat. Frosts did more damage than expected in some districts but less in others.

The production of growers reporting in the October 25 survey compared with their production last

(Continued on Page 384)



ELEVATOR AND GRAIN NEWS


MINNESOTA AND WISCONSIN

The Farmers Elevator at Wells, Minn., has been equipped with a new dump, scale and other improvements.

The Cargill Elevator Company, Superior, Wis., has been granted permit for the erection of a \$30,000 elevator there.

Oscar J. Peterson has been transferred from Hazel, Minn., to Mavie and is succeeded by his son at the former place.

The Farmers Grain & Supply Company of Rushmore, Minn., has torn down its old elevators and has replaced it with a modern plant.

A Fairbanks-Morse 10-ton truck scale and a modern air dump have been installed for the Commander Elevator Company at Elysian, Minn.

The Farmers Co-operative Elevator Company of Climax, Minn., has improved its property with a cleaner, and has built a coal shed and painted the elevator.

The elevator of the Springfield Milling Company at Wabasso, Minn., has been bought by Henry Goblirsch, for the past nine years manager of the Farmers Elevator there.

To handle grain, flour, hay, feed, etc., and livestock, the Milan Farmers Union Co-operative Shipping Association has been incorporated at Milan, Wis. A. J. Schmirler, Fred M. Blanke, Alex Ellenbecker and others are interested.

The 20,000-bushel elevator of J. Borgerding & Co., at Westport, Minn., has been bought by E. H. Pfeninger. The name has been changed to the E. H. Pfeninger Elevator Company. The elevator has 11 bins, five-bin coal shed and feed and flour store-room.

SOUTHERN AND SOUTHWESTERN

The elevator at Jett, Ky., of W. P. Haydon has been sold to J. H. Hanly & Sons.

An addition is being built to the mill of the Lubbock (Texas) Grain & Coal Company.

George Probst is letting the contract for a 20,000-bushel elevator at Hough, near Hooker, Okla.

The Shuler Grain Company of Gonzales, Texas, has installed a corn crusher of 500 bushels' capacity.

A new 10,000-bushel elevator has been completed at Floris (Forgan p. o.), Okla., by George Probst, who will operate it.

The Doggett Grain Company of Dallas, Texas, has announced its intention of building a grain elevator at Farwell, Texas.

The W. P. Henneman Company of Perico, Texas, has remodeled its elevator at Perico which it bought last June from Bouqout & Ludwick.

The Virginia Grain & Elevating Company, Inc., has been incorporated at Norfolk, Va., capitalized at \$50,000. Henry Bowdin is president.

A branch office has been opened at Plainview, Texas, by the Henderson Grain Company which has the Uhlmann Grain Company's private wire there.

The Kearns Grain & Seed Company has bought the Early Grain & Elevator Company at Amarillo, Texas. The elevator has a capacity of 150,000 bushels.

A modern air dump, scales and register are to be installed for the Barnett-Fields Grain Company of Conway, Texas, and the bin capacity will be enlarged.

A branch office has been opened at 416 Neil P. Anderson Building, Fort Worth, Texas, by W. P. Stowers Grain Company of Oklahoma City, Okla., in charge of S. T. Oates.

J. E. Gardiner is now sales manager for the Rapier Grain & Seed Company of Owensboro, Ky. He was for several years general sales manager for The Kentucky Feed & Grain Company.

The elevator of the Gillette Grain Company of Nashville, Tenn., has been completed. It consists of two units, one of which is a workinghouse, and a storage annex. The former contains practically all unloading, handling and loading machinery and equipment and provides 28 separate bins with a total capacity of 75,000 bushels. The bins are specially designed for the handling and conditioning of grains. This unit also contains the sacking department. The storage annex was designed especially for storing bulk grain in large quantities

having 12 bins with capacity of 160,000 bushels. Four large steel storage tanks already on the site have been connected with the storage annex by spouts at the top and belt conveyors at the bottom, to operate conveniently with the new elevator. The total grain storage capacity is now 600,000 bushels.

R. T. Cofer has been transferred to Dallas, Texas, and will be in the buying office of the J. C. Crouch Grain Company as assistant manager. H. H. Wright succeeds him at Lubbock, Texas, where he was manager of the Perry Burrus Elevators.

The General Mills, Inc., of Minneapolis, Minn., have announced that they will erect a 2,000,000-bushel terminal elevator at Enid, Okla., on the site bought from the Frisco Railroad, to be completed June 1, 1929. A flour mill will also be erected some time next year.

OHIO AND MICHIGAN

The elevator of Post & Dawson at Bryan, Ohio, has been equipped with a hammer mill.

The Farmers Co-operative Company of Defiance, Ohio, has installed a new freight elevator.

Repairs are being made to the elevator of C. A. Hiegel at Miller City, Ohio.

An addition is to be built to the elevator of the Landman Milling Company at Maria Stein near New Bremen, Ohio.

The elevator site of the W. H. Nelson Estate at East Leroy, Mich., has been bought by Dan Case who will build an elevator there.

A corn cutter and grader and a roller bearing corn sheller have been installed by the St. Paris Grain Company of St. Paris, Ohio.

Remodeling has been done by the Jenera Co-operative Grain & Supply Company of Jenera, Ohio, and a hammer mill has been installed.

A. K. Zinn & Co. have installed at Battle Creek, Mich., a 30-horsepower Fairbanks Morse, fully enclosed, pipe ventilated motor to operate a feed mixer.

The Bad Axe Grain Company has announced that it will rebuild the elevator at Kinde, Mich., which burned. A warehouse will be built immediately and the elevator in the fall.

The contract has been let for equipping the mill and elevator of J. Hale & Son at Ionia, Mich., and the elevator at Saranac owned by the same company with copper cable lightning rods.

A 60-foot storage room and office, the latter equipped with modern furniture has been built at Ithaca, Mich., for the Farmers Elevator Company. Scales and furnace were installed.

The Goodman Elevator at Stoutsville, Ohio, has been leased by the Huston Grain Company. The company will carry grain, seed, feed, coal, salt, etc. Theodore Huston is in charge.

An oat huller, attrition mill and other equipment have been installed by the Cramer Elevator at Wharton, Ohio. Mr. Cramer bought the mill of the Farmers Grain Company and installed the machinery in it.

The McBain Grain Company of McBain, Mich., has recently installed a three-horsepower fully enclosed, self ventilated motor to operate a batch feed mixer. The company has also installed a one-horsepower motor of the same type to operate the hand pickers.

The Decker Grain & Lumber Company of Decker, Mich., is installing an additional 10-horsepower motor. This is a Fairbanks, fully enclosed, self-ventilated, ball bearing type, equipped with a starter which provides low voltage and overload time limit protection.

The Bad Axe Grain Company is reopening the Fillion, Mich., plant which has been idle for several years to assist in taking care of its trade in the vicinity of Kinde since the loss of its elevator by fire several weeks ago. Engine power is being replaced by a 10-horsepower single phase motor which will be enclosed in a fire resistive room built of asbestos lumber and reinforced concrete.

The Michigan Bean Company of Alma, Mich., has just about completed remodeling its plant, enlarging the capacity. It has 10 motors in this plant, most of which are Fairbanks, fully enclosed, self ventilated, ball bearing type. Several of the old style open motors have been enclosed in fire resist-

ive and dust-proof housings made of asbestos lumber and reinforced concrete. All motors are provided with starters which have low voltage protection and overload time limit relays.

Smith Bros., Velte & Co., Woodbury, Mich., are replacing their engine power in the elevator at this station with fully enclosed, self ventilated, ball bearing motors, equipped with starters which will provide both the low voltage and the overload time limit protection.

Smith Bros., Velte & Co., Sunfield, Mich., have placed their order for fully enclosed, self ventilated, motors with which to drive their local elevator replacing engine power. All motors will be equipped with starters having low voltage release and overload time limit protection.

The Trufant (Mich.) Farm Bureau have installed a five-horsepower single phase motor replacing the engine power in its warehouse. Motor is controlled by oil switch with low voltage and overload time limit relay protection and the motor itself will be enclosed in a fire resistive enclosure built of asbestos lumber and reinforced concrete.

Wallace & Morley of Gagetown, Mich., have installed two 10-horsepower motors and one 7½-horsepower motor to operate their elevator. The oil engine has been dismantled. All of these motors are Fairbanks-Morse, fully enclosed, pipe ventilated type, equipped with starters having low voltage protection and overload time limit relays. The electric lighting system is also being overhauled.

The grain elevator at Ada, Ohio, has been bought by Albert Gross and his father-in-law, F. S. Swearingen of Springfield, and the firm will be known as the Swearingen & Gross Grain Company. Mr. Swearingen conducted the grain elevator at Cass-town for a number of years previous to selling out to Martin & Rehmer four and a half years ago. Mr. Gross was associated with him in business.

The Pattison-Wood Elevator Company of Alto, Mich., which is now operating the elevator formerly owned by the Alto Elevator Company which went into the hands of a receiver about a year ago is installing a 10-horsepower single phase motor to operate the grain end of the plant. The engine will still continue to be used to grind the feed. This motor will be enclosed in a dust tight and fire resistive enclosure built of asbestos lumber and reinforced concrete.

WESTERN

R. A. Yost has sold his grain business at Clovis, N. M.

The elevator of G. F. Early & Son at Lander, Wyo., has been equipped with lightning rods.

A copper carbonate dusting machine has been installed in the grain warehouse at El Toro, Calif.

The elevator of the Hayden Valley Co-operative Company of Hayden, Colo., has been leased by C. M. Dinius.

An office building is to be built in front of the warehouse of the Oroville Grain Company at Oroville, Wash.

The elevator of the Gildford Grain & Trading Company at Gildford, Mont., has been bought by T. E. Hegna of Winnett.

A Fairbanks-Morse 10-ton scale and a dump have been installed in the elevator of the Lewis Grain Company of Brady, Mont.

The La Junta Milling & Elevator Company of La Junta, Colo., has bought the coal business of the McNeen Lumber Company.

An elevator has been opened at Atwood, Colo., by the W. C. Harris Grain Company of Sterling, Colo., and J. E. McTee has been put in charge.

Jack Hansen and J. W. Hansen have leased the elevator at Gillette, Wyo., built by Ben Powell. They will operate as the Farmers Elevator Company.

The Hungarian Flour Mills of Denver, Colo., have their new 400,000-bushel elevator completed. It is a branch of the Colorado Milling & Elevator Company.

The 85,000-bushel elevator at American Falls, Idaho, now leased by the Great Basin Grain Company, has been bought by W. W. Percival, president of the Hylton Flour Mills, Inc., Ogden and the Lakeside Milling Company, Salt Lake City. Mr. Percival has also bought the machinery and equip-

ment of a 500-barrel mill at American Falls, formerly operated by the Northern Flour Mills Company. No decision has been reached relative to the installation of the milling equipment.

Joseph Hanson, P. P. Thomas and W. A. Simmons have incorporated the H. & T. Feed & Elevator Company of Spanish Fork, Utah. Its capital stock is \$50,000.

The Farmers Elevator Company of Culbertson, Mont., has made extensive repairs. It has installed new legs, automatic scales, manlift, bin alarm and other equipment.

The stock and good will of the Duthie Company at Coeur D'Alene, Idaho, have been bought by Albert H. Knudson. Will deal in grain, feed, seed and farm implements.

Voters of Pierce County, Wash., voted their approval of a \$500,000 bond issue for the construction of a modern grain elevator for the Portacoma Docks at Tacoma, Wash.

R. P. Misener is the manager for the Farmers Elevator Company at Whitewater, Mont. He has been with the Farmers Elevator Company at Malta, Mont., for two years.

The old Portland Flouring Mills at Portland, Ore., are being converted by the Union Pacific System into a modern grain terminal. The terminal is leased to Kerr Gifford & Co.

The interest of Lawrence Henigan in the grain and commission business at Woodland, Calif., has been bought by his partner, T. O. Arens. Mr. Henigan is now associated with Arthur Daussat.

The plant of the Smith & Tyner Company at Oswego, Mont., has been improved with a new dump and a Fairbanks 10-ton Scale and new leg. A new automatic scale has also been installed.

To handle grain, coal and feed, Jack-Frost, Inc., have incorporated at Pueblo, Colo., capitalized at \$50,000. P. A. Cessna is president of the firm. The company will operate on a chain store basis in Colorado, Kansas and Nebraska.

IOWA

Spike & Co., Vinton, Iowa, has installed a new 10-ton truck scale.

W. R. Rock has sold his grain business at Oto, Iowa, to M. H. Spurgeon of Webster City.

A grain cleaner has been installed for the Farmers Elevator Company of Goldfield, Iowa.

L. H. Adams & Co., Lake City, Iowa, have equipped their elevator with roller bearings.

A Rosco Huller has been installed by George Wagner in his elevator at Storm Lake, Iowa.

An addition has been built to the elevator of the Farmers Elevator Company of Earlham, Iowa.

Extensive remodeling has been done at the elevator of B. M. Stoddard & Son at Sloan, Iowa.

An addition has been built to the lumber shed of the Farmers Elevator Company at Hansell, Iowa.

A new auto truck dump has been installed by the Farmers Grain & Supply Company of Linn Grove, Iowa.

A new Link Belt Chain Drive has been installed in the elevator of Davis Bros. & Potter of Nemaha, Iowa.

A new 10-ton Fairbanks Morse Auto Truck Scale has been bought by Skarup & Graves at Maple Hill, Iowa.

The elevator of the Calumet Elevator Company of Calumet, Iowa, has been repaired and new legs installed.

Some of the buildings of the Farmers Elevator Company at Northwood, Iowa, have been remodeled and painted.

The Farmers Elevator Company of Blanchard, Iowa, has installed a new 10-ton truck scale and wagon scale.

A number of repairs have been made to the elevator of the Piper Grain Company of Zaneta (p. o. Dike), Iowa.

Improvements have been made to the elevator and mill of the Gilchrist Coal & Feed Company of Ames, Iowa.

An oat huller is to be added to the feed grinding equipment of the Farmers Elevator Company at Coulter, Iowa.

The Cartersville Supply Company of Cartersville, Iowa, has bought the elevator of the Nye-Jenks Grain Company.

A 15-ton Fairbanks-Morse Auto Truck Scale has been installed by the Farmers Elevator Company of Larrabee, Iowa.

Two new auto truck dumps have been installed in the elevator of the Western Elevator Company of Linn Grove, Iowa.

The elevator of O. M. Anonson at Roland, Iowa, has been sold to C. B. Johnson. The elevator was built in 1924 and since then has been operated by Anonson and M. M. Egeland as the Roland Grain

Company. Mr. Johnson owns the elevator on the north side of the tracks and will operate both properties.

The Gilchrist Elevator at Bristow, Iowa, has been bought by Carl Shorage. He also installed a 7½-horsepower motor.

The elevator, coal and implement business of F. A. Haase at Zeoring, Iowa, has been sold to D. F. Vorhees of Des Moines.

The elevators of O. A. Talbot at Eldon, Salem and Weaver, Iowa, have been bought by the A. D. Hayes Company of Mt. Pleasant.

A 10-horsepower and one 3-horsepower motor have been installed for the Farmers' Co-operative Company at Webster, Iowa.

An oat huller has been installed in the plant of the Farmers Elevator Company of Malcom, Iowa. H. B. Booknau is manager.

Davis Bros. & Potter have completed new buildings and coal sheds at Bagley, Iowa. The elevator has capacity of 80,000 bushels.

Wm. Johnson has sold the old Hazeltine Elevator at Rowan, Iowa, to the Rowan Grain & Lumber Company. It will handle grain and coal at both elevators.

Improvements have been made to the Denhart (Corwith p. o.), Iowa, plant of Davis Bros. & Potter. The office has been raised and a 10-ton Fairbanks Morse Type S Scale installed.

The elevator of the Farmers Elevator Company at Vincent, Iowa, has been remodeled and will be used as a storage plant. A feed warehouse and double corn crib have also been installed.

S. W. Summers is succeeded as manager of the Clarion Farmers Elevator Company at Clarion, Iowa, by Art Shillington, formerly manager of the Farmers Elevator Company at Harcourt.

A new electric dump has been installed for the Farmers Elevator Company at Ellsworth, Iowa, and new elevating belt and new cups installed. The power has been changed from 5 to 10-horsepower. Harry Pitzer is manager.

A new auto truck dump has been bought by the Munn Lumber Company of Huxley, Iowa, for its elevator. The Munn company has erected a new elevator at Slater with capacity of 23,000 bushels oats and 8,000 bushels ear corn. The company will also engage in custom grinding.

The elevator of the Spencer Grain Company at Spencer, Iowa, has been taken over by the Wilson Coal and Grain Company. H. A. Wilson is president and manager of the firm, which is capitalized at \$10,000. In the deal, the elevators at Greenville and Rembrandt also changed hands and were later sold, the one at Greenville to W. J. Skewis & Co., and the one at Rembrandt to the B. B. Anderson & Sons Grain Company.

INDIANA

A roller bearing corn sheller has been installed for the Studabaker Grain & Seed Company of Bluffton, Ind.

The Hobbs Grain Company of Tipton, Ind., has installed a Fairbanks Morse Platform Scale with capacity of 10 tons.

Papers evidencing preliminary dissolution have been filed by the Rossville Grain Company of Lawrenceburg, Ind.

The elevator which the Russiaville Grain Company of Russiaville, Ind., bought from A. E. Betts & Co., is being remodeled.

A new elevator has been built at Johnson (Boonville p. o.), Ind., for Garrett & Antell of Princeton. It has ball bearing equipment.

The B. Notsger Elevator at Rochester, Ind., has been bought by the Rochester Co-operative Elevator Company and Charles E. Towne has been retained as assistant manager.

The elevator of the Hamlet Grain Company at Hamlet, Ind., has been bought by C. M. Patty and George W. Myers. They will operate as the Hamlet Grain & Feed Company.

The Swayzee Grain Company has been incorporated at Swayzee, Ind., capitalized at \$7,500. John D. Kiefer, Walter D. Lavengood and E. E. Lavengood are interested. The company will handle feed and seed.

A new office has been built and new set of scales and large motor unit with which to operate a feed grinder installed by the Busenbark Grain Company of Crawfordsville, Ind. The company will have molasses mixing machinery installed before January 1.

Clark & Kirklin, Laurel, Ind., who recently took over the Wright Elevator there, have made many improvements in the plant. They have rewired the plant for electric lights and installed same in rigid iron conduit according to the latest elevator practice. They also installed a Jay Bee 3UX Hammer Mill.

L. Brooks has sold a half interest in the New Lebanon, Ind., Elevator to Wallace Springer. The

old elevator owned by L. Brooks & Son which burned has been replaced by the new elevator which is completely equipped with modern machinery. It will be operated as Springer & Brooks.

The elevator of the Farmers Elevator Company at South Whitley, Ind., of which L. R. Rumsyre is manager, is being overhauled and equipped with a 75-horsepower hammer mill, half ton batch mixer, corn cracker and grader, and seven fully enclosed motors with anti-friction bearings.

The elevator of the Clarence Ray Company, bankrupt, at Rockport, Ind., was recently sold by the Bank of Rockport, trustees. The elevator was sold to the Wallace Milling Company of Huntingburg, Ind., and the warehouse at Rock Hill to the Cadick Milling Company of Grandview, Ind.

MISSOURI, KANSAS AND NEBRASKA

The Farmers Elevator Company of Bellefont, Kan., has installed new coal sheds.

The elevator of W. C. Jacobs at St. James, Mo., has been bought by W. K. Kirgan.

The Kellogg Grain Company of Grant, Neb., has completed a 30,000-bushel elevator.

A grain and feed business has been opened at McPherson, Kan., for A. H. Reiderer.

The Ingham, Neb., elevator of the Axtell Bros., has been equipped with a truck dump.

The Kellogg Grain Company has completed a 50,000-bushel elevator at Alliance, Neb.

The Rockville Equity Exchange Elevator at Rockville, Mo., has been equipped with lightning rods.

W. E. Erwin and Ora Moore have bought an elevator at Centerville, Kan. Ora Moore is in charge.

H. A. Bonnell is succeeded as manager of the Climax (Kan.) Elevator Company by C. R. Williams.

A. H. Riederer is succeeded as manager of the Chase Co-operative Elevator at Chase, Kan., by W. R. Baer.

The elevator of Harrington & Cummings at Fostoria, Kan., has been equipped with electric truck dump.

A 10,000-bushel elevator with cleaner equipment has been built at Burlington Junction, Mo., for M. M. Adkins.

The Wilson Grain Company of Nebraska City, Neb., has bought the Duff Elevator property at Syracuse, Neb.

The Pratt, Kan., office of the Benton Grain Company is under the management of Earle Williams of Hutchinson.

John R. Harper is succeeded by Charles W. Dudley as manager of the Sturgeon Elevator Company of Sturgeon, Mo.

An elevator of 20,000 bushels' capacity is being erected at Centralia, Kan., for the H. F. Potterf Grain Company.

George Kelsey is succeeded by Leslie Martin as manager of the Sanford Grain & Supply Company of Sanford, Kan.

The elevator and lumber yards of the Nye & Jenks Grain Company at Touhy, Neb., have been bought by Emil Ohnouta.

The inspection service of the Kansas State Grain & Hay Inspection Department has been discontinued at Clay Center, Kan.

Green & Cornelison are succeeded at Reserve, Kan., by Cornelison & Gilmore. Some new equipment has been installed in the elevator.

The Bennett Elevator at Eskridge, Kan., has been bought by Dave McKnight. It has never been used and was sold for the material in the building.

The Nye & Jenks Grain Company's lumber yard at Dwight, Neb., has been bought by C. A. Novicek, formerly manager of the grain elevator at Touhy, Neb.

The elevator at Weeping Water, Neb., for years owned by the Switzer Bros., has been bought by E. F. Marshall. He will do a general grain elevator business.

Some of the coal sheds of the Barnett Lumber Company at Indianola, Neb., have been bought by the Smith-Reiter Grain Company. Repairs are being made.

The elevator at Belpre, Kan., formerly owned by the Belpre Grain & Supply Company, has been bought by the Davidson Grain Company of Hutchinson, Kan.

The Farmers Co-operative Company of Filley, Neb., has installed a pneumatic truck dump and 10-ton truck scale. The company is planning on building an elevator.

Wm. Harness and George Taylor have bought the elevator of the Quaker Oats Company at Iowa Point, Kan. Mr. Harness has been manager there for a number of years.

Plans are being made by the S. P. Wallingford Grain Company, Wichita, Kan., for the erection of a 1,250,000-bushel elevator on a 10-acre tract of land bought by it recently. Work on the new stor-

age which will cost \$250,000 will start as soon as the site can be connected by rail with the present line of the Wichita Terminal Association.

The Cranston-Liggett Grain & Feed Company of Leavenworth, Kan., has been liquidated. George E. Liggett, one of the former owners, will probably take over the plant.

The elevator and residence property of the Taylor Grain Company at Murphy, Neb., have been bought by the Aurora Elevator Company, which is now in charge of the business.

The Jones-Hettelsater Construction Company has the contract from the Wall-Rogalsky Milling Company of McPherson, Kan., for the 150,000 bushel addition to its elevator.

A site has been secured by George Gano at Garden City, Kan., upon which a new elevator will be built. The new building will have storage space for 50,000 bushels wheat.

A number of repairs and improvements have been made to the elevator of the Holmquist Elevator Company at Uehling, Neb. Lightning rods and electric motors have been installed.

The elevator of the Farmers Union Grain Company of Oketo, Kan., has been leased to James A. Gifford of Jamestown. The new name of the company is the Oketo Grain Company.

F. C. Machin is now manager of the Farmers Co-operative Elevator Company of Rossville, Kan. He sold his interest in the Machin-Willig Grain Company at Hebron, Neb., to C. P. Willig.

The Farmers Co-operative Grain & Supply Company of Farwell, Neb., has installed a Jay Bee Mill, and a 40-horsepower Fairbanks Morse Motor in the west elevator, formerly the Taylor Elevator.

An elevator with initial capacity of 1,000,000 bushels is to be built at Kansas City, Mo., by the Wood Bros. Corporation of Lincoln, Neb., in connection with the new river rail development.

Improvements have been made to the property of the Keene Grain, Livestock, Lumber & Coal Company of Keene, Neb., including the installation of a new distributor, head drive, electric motors, etc.

An elevator of 1,000,000 bushels' capacity in being planned for the Collingwood Grain Company of Hutchinson, Kan. The elevator, which the company formerly operated, has been sold to the Security Elevator Company.

The Wilson Grain Company of Nebraska City has bought the Duff Elevator at Syracuse, Neb. It has been leased to the Iowa-Nebraska Grain Company since it was opened two years ago. Henry Misch has been manager for the past few months. He will be retained by the new owners.

Harry Hamilton is the new elevator supervisor for the Grain Belt Elevator Company of Hutchinson, Kan., owned by the L. H. Petit Grain Company. He was manager of the Equity Exchange Company of Partridge, Kan. The new elevator will be ready about the middle of December.

The terminal elevator of the Illinois Central Railway at Omaha, Neb., is to be improved with an addition. The total capacity when completed will be 1,000,000 bushels. It will be equipped with cleaner, drier and Link Belt Car Unloader. The elevator will be operated by the Crowell Elevator Company.

THE DAKOTAS

The Thomas Price Elevator at Price (Cresbard p. o.), S. D., has been equipped with a grain separator.

A dump and Fairbanks-Morse Scale have been installed for the Powers Elevator Company at Britton, S. D.

A new leg has been installed and other repairs made to the Mina Equity Exchange's elevator at Mina, S. D.

The Farmers Elevator Company of Onida, S. D., has installed head drives together with Fairbanks-Morse Motors.

A 30,000-bushel elevator with cleaning equipment is to be built at Linton, N. D., for the Farmers Elevator Company.

The H. H. Drews Elevator at Ashley, N. D., has been bought by J. J. Weixel of Eureka, S. D. A. W. Brosz is in charge.

The Lubeck Grain Company at Tuttle, N. D., has installed a 10-ton Fairbanks Morse Scale. It has also installed three motors.

Donald Hart is in charge of the former Thergaard Elevator at New England, N. D., which is now controlled by the farmers.

The Farmers Elevator Company of Emerado, N. D., has contracted for a 30,000-bushel elevator. This will replace the one which burned.

The business of the Davenport Elevator Company at White, S. D., has been bought by the C. A. Brown Company. B. B. Mueller is in charge.

The plants of the Farmers Union Elevator & Mercantile Company of Regan, N. D., of which C. W.

Parsons is manager, will motorize its plants and install new head drives and Fairbanks Enclosed Motors.

The Minnekota Elevator Company of Adams, N. D., has installed a Fairbanks-Morse Motor. The cleaner is driven by a two-horsepower motor.

The Spaulding Elevator Company of Loma, N. D., has been bought by the National Elevator Company. George Christesen will continue as manager.

The elevator of the Letcher Grain Company at Letcher, S. D., has been remodeled and overhauled and opened for business. George Lee is owner.

The Southey Grain Company has been incorporated at Garrison, N. D., capitalized at \$15,000. The incorporators are J. Rueters, A. Southey, R. A. Miners, Nick Rueter and J. A. Rueter.

The Hainer Grain Elevator at Menno, S. D., has been bought by Paul Williamson of Merrill, Iowa. He will conduct the elevator and will also have a feed mill in another elevator and operate that also. The elevator will be overhauled and equipped with new machinery.

EASTERN

The G. A. Dymond Company of East Pembroke, N. Y., has installed roller bearings on its main line shaft.

The grain and feed store of the W. H. Nye Company at Brockton, Mass., has been bought by the Narrangansett Milling Company.

The property and business of the Rockville Milling Company at Rockville, Conn., has been bought from Sherwood C. Cummings by the Yantic Grain & Products Company of Norwich.

The Bridgton Co-operative Company's plant at Bridgton, Maine, has been bought by the New England Grain Company of Portland, Maine. A full line of grain, feed, coal, salt, etc., will be carried as well as fuel oils and gasoline.

ILLINOIS

The Federal Grain Company has bought the elevator at Mineral, Ill.

The elevator of Ed Morris at Coles, Ill., which burned is being rebuilt.

Chester K. West's elevator at Loda, Ill., has been bought by George E. West.

Louie Kroepel is succeeded at the elevator at Hanna City, Ill., by Henry Molchin.

The Thompson Elevator at Fithian, Ill., has been leased by Charles Fletcher of Royal.

Bob Morgan has taken over the elevators of the Nora Co-operative Company at Nora, Ill.

The Bourbon Grain Company of Bourbon, Ill., has been bought by Horton & Reeder of Garrett.

A new coal storage house has been completed at Foolsland, Ill., for the Farmers Grain Company.

The Farmers Grain & Coal Company has rebuilt its elevator at Teheran, Ill., which burned in August.

The capital stock of the Athens Farmers Elevator Company of Athens, Ill., has been increased from \$5,000 to \$15,000.

The elevator at Grant Park, Ill., formerly owned by Paul Kuhn & Co., has been bought by George A. Lauffer of Chicago.

The Federal Grain Elevator at Atkinson, Ill., has been remodeled. It is expected that electric equipment will be installed.

A new 25-horsepower motor has been installed replacing the steam engine for the Milmine Grain Company of Milmine, Ill.

A new gasoline engine will be bought by the Burtonview Coal, Grain & Lumber Company of Burtonview (Lincoln p. o.), Ill.

A new motor has been installed in the elevator of the Burt & Richmond Grain Company at Richmond (p. o. Armstrong), Ill.

The Hight & Cline Grain Corporation has been incorporated at Decatur, Ill. Its capital stock is \$50,000. William Hight is interested.

New equipment has been installed for the Farmers Elevator Company of Alexander, Ill. Included in the machinery are a corn sheller and wagon scale.

A building for the storage of feeds has been built for the Maquon Elevator Company of Maquon, Ill. The manager of the elevator, G. H. Walters, will have charge.

The Dutton Grain Company of Hight (Dalton City p. o.), Ill., has dismantled its elevator. The county is building a new road and the elevator stands in the right-of-way.

An auto truck dump has been bought and a 10-ton auto truck scale will be installed for H. C. Vollmer Company, Lostant, Ill. The elevator will also be re-roofed.

A 20,000-bushel elevator is being built at Chestnut, Ill., for the Downs Grain Company. The machinery was furnished by the Union Iron Works

and consists of cleaner and sheller, drives, two motors, scale and 15-ton truck scale. The work is to be finished January 15.

The Farmers Grain Company has installed a new leg belt in its elevator at Edinburg, Ill. It has also put in some new cups and gears bought from the Union Iron Works.

One of the elevators of the Farmers Co-operative Elevator Company at Donovan, Ill., has been sold to a local man who will wreck it and use the material on his farm.

A modern elevator and feed mill have been constructed at Jacksonville, Ill., by C. R. Lewis. The workinghouse bins will have storage capacity of 25,000 bushels grain.

Two electric motors, one of 10 and one of 15-horsepower, are to be installed for the Clifton Grain Company of Clifton, Ill. Lightning rods may also be placed on the elevator.

Complete electrical equipment, including two motors, has been installed for the Grussing Grain Company of Royal, Ill. The old gas engine is to be retained as auxiliary power.

The 20,000-bushel elevator of the Hermon Farmers Livestock, Grain & Co-operative Association at Hermon, Ill., is to be sold at auction. Roy Bliss is president of the association.

J. W. Stills & Son of Maunie have leased the elevator of R. S. Prunty & Co., at Grayville, Ill. The company has been operating elevators at Maunie, Epworth, Crossville and Calvin.

The Henning Grain Company of Henning, Ill., has completed installing a new belt. A Western Corn Sheller has been installed. The Union Iron Works furnished the equipment.

The Kerrick Grain Company, Kerrick (Normal p. o.), Ill., has completed its new elevator replacing the old one. Roy Bates is manager. All the equipment is of the latest type.

The South Elevator of the Central Illinois Grain Company at Mechanicsburg, Ill., has been bought by the Mechanicsburg Farmers Grain Company. It recently installed a hammer mill.

Sumner Livingston is building a 10,000-bushel elevator at Alta, Ill. It will be equipped with a cleaner and sheller, automatic scales, 10-ton truck scale and 24-inch Monarch Attrition Mill.

The storage capacity of the Brocton Elevator Company at Redmon, Ill., has been increased to 160,000 bushels. A Fairbanks-Morse 10-ton scale and power plant have also been installed.

The Heman Grain Company of Warrensburg, Ill., has completed the installation of a new 40-horsepower Fairbanks-Morse Diesel Oil Engine and replaced the old bearings with ball bearings.

The Taylorville Farmers Grain Company of Taylorville, Ill., has installed a new Western Corn Sheller fitted with roller bearings which has capacity for shelling about 600 bushels corn per hour.

Property of South Ottawa Co-operative Grain & Supply Company, South Ottawa, Ill., has been bought by Chas. N. Bonges of Benson. He will operate as the Bonges Grain & Supply Company.

The grain elevator at Buckingham, Ill., has been bought from Otto Gross by The Quaker Oats Company of Chicago. There are rumors that The Quaker Oats Company will erect a large terminal at Kankakee.

J. F. Van Cura is succeeded as superintendent of the Cleveland (Ohio) Grain Company's elevator at Champaign, Ill., by A. P. Lierman. Mr. Van Cura will have charge of the elevator at Chicago, which the Cleveland firm bought recently.

The elevator of Boies & Blessman at Gridley, Ill., has been equipped with ball bearings throughout. The elevator is also equipped with two 7½-horsepower electric motors and one 2-horsepower motor as well as two auto truck dumps.

M. H. Matteson of West Union, Ill., writes: "I wish you would correct name M. H. Matteson instead of H. M., and the elevators I acquired recently of Paul Kuhn & Co., estate are at Snyder and Walnut Prairie, Ill., with the office at West Union, Ill."

The new electric motors have been bought by the Cerro Gordo Co-operative Grain Company of Cerro Gordo, Ill., which will replace its 40,30 and 3-horsepower motors. The change was necessitated by the change in electric power from 25 to 60 cycles alternating current.

The Lostant Grain Company of Lostant, Ill., has overhauled and remodeled its property, transforming it into a modern structure. It has also installed two new 10-horsepower Fairbanks-Morse Motors, three auto trucks and has wired the building for electric lights.

The A. & O. Grain Company of Oreana, Ill., is building a 25,000-bushel addition for storing both ear corn and small grains. The machinery includes a Western Sheller and Western Cleaner, both equipped with roller bearings. Two 16-inch 5-ply belts are used. There are Fairbanks-Morse Type Y Engines.

CANADA

A 100,000-bushel elevator is to be built at Lethbridge, Alta., for the Ellison Milling Company.

The Alberta Wheat Pool is making plans for the erection of nine grain elevators of 40,000 bushel's capacity each.

The new elevator at Collingwood, Ont., will be ready by August, 1929. It will have a capacity of 2,000,000 bushels.

Plans are being prepared for the erection of a 250,000-bushel elevator at Fort Churchill on Hudson Bay, Canada, at the terminus of the new railroad now being built.

The Monroe-Fowler Elevator Company at Wilcox, Sask., will rebuild its elevator which burned. The loss was \$50,000 and an investment of \$100,000 will be made in rebuilding.

An addition is to be built to the elevator of the Midland-Simcoe Elevator Company of Midland, Ont., bringing the total capacity to 14,000,000 bushels. Work will start in the spring.

C. W. Somers of the Canada Grain Company, Ltd., Toronto, Ont., and associates have bought the plant of the Kerr Milling Company, Ltd., Dundas, Ont. Robert Kerr will remain as superintendent. It is the intention of the company to operate under the old name of the Kerr Milling Company, Ltd.

HAY, STRAW AND FEED

The Farmers Feed Store has been opened at Martin, Tenn.

A feed and seed store has been opened at Seattle, Wash., by Peter Kemp.

A new feed store has been opened at Fairburn, Ga., by H. E. Naughton.

A feed and poultry store is to be opened at Pittsfield, Ill., by M. Ewing.

J. W. Weldon of Cainsville, Mo., has improved his feed store with a grinder.

A feed store has been opened at Sylacauga, Ala., for Thomas A. Ogletree, Jr.

A hammer mill has been installed for the Hart Grain Company of Buffalo, Ill.

A hammer mill has been installed for the Hirsch Grain Company of Tripp, S. D.

Day Welty is now in charge as manager of the L. & G. Feed Store at Polo, Ill.

A feed mill has been installed for the New London Elevator at Russell, Minn.

The Industry Co-operative Company of Industry, Ill., has installed a hammer mill.

The Kirk Feed Company of Bloomington, Ind., has installed a vertical batch mixer.

A new feed storage house has been erected at Erie, Ill., for Pfundsten & Riordan.

A hammer mill has been installed for the Moore Grain Company of Greensburg, Kan.

An annex is being built by Tom Berhow at Kana-
wha, Iowa, to be used as a feed house.

A feed mixing plant with grain storage capacity is being built at Neosho, Mo., for Phil Ratcliff.

Bruce McHenry has taken over the feed and lumber business of C. R. Holmes at West Union, Ohio.

The Eagle Grove (Iowa) Feed & Produce Company is controlled by Ray Newell and Guy Larsen.

A warehouse for storing millfeeds and seeds will be built at Milmine, Ill., for the Milmine Grain Company.

A new hammer mill has been put into operation by the Douglas Flour & Feed Company of Marshalltown, Iowa.

The feed store of Frank Thirkett at Bradford, Ill., has been sold to Clarence Hay who is now conducting it.

A hammer mill has been added to the equipment of the Busenbark Grain Company at Crawfordsville, Ind.

Cecil Appleby is now in charge of the feed business of the Borden Southern Company at Lewisburg, Tenn.

An addition for feed grinding equipment has been built for the Cokato Grain & Market Company of Cokato, Minn.

The property of the Farmers Elevator Company at Delavan, Ill., has been equipped with feed grinding machinery.

An annex has been built to the elevator of the Burt Grain Company of Goldfield, Iowa, and a feed mill installed.

The feed stock of F. B. Christian at Holland, Mich., has been bought by the Austin Harrington Coal Company.

F. M. Harrell and George P. Croy have formed a partnership at Tallahassee, Fla., and will conduct a feed business.

The feed and fuel business of McNamara & Son has been bought by the Miller Lumber Company of Marquette, Mich.

A drying house of the Victoria Elevator Company at Minneapolis, Minn., is being remodeled into a modern feed plant.

The J. W. Fate Company, Blanchard, Mich., is installing an attrition mill, direct driven by a 30-horsepower fully enclosed, pipe ventilated motor.

It is also installing a 3-horsepower fully enclosed self-ventilated motor with an automatic starter to operate the elevator legs for the feed mill.

S. F. Walstad Independent Elevator at Sacred Heart, Minn., will be equipped with a feed mill and corn crusher.

The Webster City Coal & Feed Company at Webster City, Iowa, has been bought by W. E. Staley, from B. B. Stuff.

Another grinder and corn crusher are to be installed for the Farmers Elevator Company of Sleepy Eye, Minn.

The Associated Feed Stores have opened at Arcadia, Calif., at 1222 Baldwin Ave., with F. B. Bears as manager.

A hammer mill for custom grinding has been installed for the Littlefield Grain & Seed Company of Littlefield, Texas.

The interest of Mrs. Letitia Rockhold in the Corn Belt Feed Company, Boswell, Ind., has been bought by Clarence Lawson.

The plant of the Lomira Elevator Company of Lomira, Wis., has been overhauled and equipped with a new batch mixer.

A feed grinding department has been opened at Pleasant Plains, Ill., for the Pleasant Plains Farmers Elevator Company.

B. Frank Brown and J. Marion Peacock have opened for business at Dublin, Ga., as the Crescent Feed & Poultry Company.

New and modern equipment for mixing molasses feeds has been installed for the Ben-Ford Company of South Deerfield, Mass.

The W. Seyk Company of Kewaunee, Wis., has installed a new feed grinder. The company has an elevator and feed station.

Feed grinding will be conducted by the Farmers Elevator Company of Somonauk, Ill., with the new hammer mill just installed.

An addition has been built to the elevator of W. L. Finson at Monticello, Ind. It will be used for grinding and mixing feeds.

The Lincoln Way Hatcheries of DeWitt has opened a new feed store at Maquoketa, Iowa, under the management of Carl J. Smith.

John Erbes of Greenfield, Iowa, has bought the E. M. Bonney Feed Store. Mr. Bonney had been in the feed business for over 20 years.

The new feed business of the Plainview Warehouse & Storage Company at Plainview, Texas, is to be under the management of Ray Wilson.

Joseph Wolkowi, Betsy Sher and Max Sher have incorporated the American Feed Company, Inc., of Morristown, N. J. Its capital stock is \$100,000.

The Owen-Peeke Feed & Grain Company of Chino, Wash., has installed feed grinding and mixing machinery. They will also do custom grinding.

The Valley Feed & Supply Company has been formed at Roncerverte, Va., by J. W. Morris and J. B. Yates. A full line of feeds will be carried.

A hammer mill, cracker and grader for corn have been installed by J. G. Mills, who opened a retail feed store at Cardington, Ohio, last spring.

A 36-inch attrition mill and two 25-horsepower enclosed fan cooled motors have been installed for the Farmers Elevator Company of Castletown, S. D.

The business of the Wilson Produce Company has been bought by B. D. Karber, feed dealer of Fairview, Okla., and the two businesses will be combined.

Capitalized at \$10,000, the D. & E. Feed Company has been incorporated at Ney, Ohio. D. W. Strusaker, E. C. Haase and L. R. Strusaker are interested.

John T. Graves and Floyd Monsinger have formed a partnership at Vallonia, Ind., and will operate a

feed business as Graves & Monsinger. Both are old time feed men, Mr. Graves having had a feed business at Salem and Mr. Monsinger at Medora.

A branch feed store has been opened at Van Nuys, Calif., in the west end of town by the Security Feed & Supply Company, under the management of H. P. Curron.

The Saukville Feed Company of Saukville, Wis., has built a feed warehouse on the property recently bought from the Saukville Equity Farmers Exchange.

Stores have been opened at Lima, Maud, Bowlegs and Seminole, Okla., by the Thompson Feed Company of Wewoka, Okla., where they have moved into a larger building.

The capital stock of the Clark Feed & Seed Company of Pharr, Texas, has been increased from \$5,000 to \$15,000. The company will do a wholesale and retail business.

A factory costing \$100,000 is to be built at Toledo, Ohio, for the A. B. Caple Company, hay dealers. The company has a new process for converting hay into a specialty for stock feed.

The new \$10,000 feed manufacturing plant of the W. H. Payne Elevator & Grain Company at Independence, Kan., is in operation. The company specializes in poultry and dairy feeds.

The elevator at Saginaw, Mich., operated by the Saginaw Farm Bureau Stores, has recently installed a feed mill with magnetic spout for removing tramp iron from the grain before it is ground.

To conduct a wholesale feed business, A. H. Browne, Inc., of Lewiston, Maine, has incorporated, capitalized at \$10,000. Arthur H. Browne, Fred H. Lancaster and Lawrence Rideout are interested.

T. F. West has bought the Lubbock Grain & Coal company at Lubbock, Texas, and changed the name to the Yellowhouse Mills. They have installed a modern feed plant with 300,000 pounds daily capacity.

A new feed mill will be opened at Albert Lea, Minn., for the Speltz Grain & Coal Company. This company has feed mills at Glenville, Hope, Myrtle and Alden and one will soon be in operation at Walters.

Sprout-Waldron machinery has been installed in the elevator of the Pacific Grain Company of Hutchinson, Minn., consisting of a Monarch Attrition Mill, Monarch Crusher and Monarch Corn Cutter and Grader.

W. R. Brakey of Cherokee, Okla., and Dan Mock of the Mock Feed & Fuel Store have formed a partnership and are buying a full line of feeds and seeds for the new store which they will have in the Brakey Building.

A new molasses feed mixer has been installed by the Potsdam Feed & Coal Company of Potsdam, N. Y. It will have capacity of 30 tons daily. Storage tanks are being placed which will hold about 10,000 gallons molasses.

The wholesale and retail feed business at Jamestown, N. Y., formerly conducted as the Electric Mills Company has been bought by D. S. Churchill and L. C. Moore. They have reorganized as the Churchill-Moore Company.

The feed grinding capacity of the Washington Co-operative Grain Company of Washington, Ill., has been increased. New Monarch Grinder and Mixer and two 40-horsepower motors have been installed. G. E. Dorward is manager.

D. Mansfield & Co., Remus, Mich., are installing an attrition mill, direct connected with a 30-horsepower fully enclosed, pipe ventilated motor. They are also installing a 15-horsepower motor and three-horsepower motor. Both of these motors are of the fully enclosed, self-ventilated type, provided with starters which have both the low voltage and overload time limit protection.

The Watertown Co-operative Association, with headquarters at Watertown, Mich., has bought the Paul Billings hay warehouse at Sandusky, Mich., and converted it into a feed mill. Equipment consists of a Jay Bee Mill, equipped with feeder and crusher and in addition a magnetic spout separator has been installed to remove the tramp iron from the grain before being ground. All of this equipment is operated by means of a 40-horsepower fully enclosed, ball bearing, pipe ventilated motor, equipped with a special shaft, having a pulley on each end of the motor.

The Richmond Feed Milling Company, Inc., has taken over the mill property of the Eastern Indiana Milling & Elevator Company of Richmond, Ind. This marks the close of a long and successful career for this mill which was originally put up as an experimental mill by the Nordyke & Marmon Company. The flour mill is being dismantled and a 100-ton feed mill unit will be installed. The Richmond Feed Milling Company was recently incorporated for \$50,000 with A. A. Curme as president; Harvey Bosworth, vice-president; Harold Coleman, secretary-treasurer.

OBITUARY

BRIN.—Adam Brin died recently. He organized the Farmers Elevator at Stewartville, Minn. He was also treasurer of the Minnesota Farmers Elevator Association for 17 years.

BUDD.—T. D. Budd, elevator construction engineer of Chicago, Ill., died from peritonitis following an operation for appendicitis.

CAMPBELL.—Frank Campbell, manager for the Farmers Elevator Company at Rockwell, Iowa, when it was first started, died recently aged 74 years.

COCHRAN.—Edward Cochran was killed recently in the elevator of the Nading Grain Company at Lewis Creek, Ind., of which he was manager. He had worked in this elevator for 30 years.

COMBS.—Albert Combs died aged 63 years at Brenham, Kan. He was manager of the elevator there.

COUNSELMAN.—On November 14, Charles Counselman died at his home in Port Chester, N. Y., aged 46 years. Mr. Counselman in 1904 was made vice-president of the Chicago Grain & Elevator Company. He was founder of the investment banking firm of Counselman & Co.

DE VEAU.—James De Veau died on November 27. He was connected with the grain trade of Minneapolis for the past 40 years. He was born in 1852 of a pioneer aristocratic family of Toledo, Ohio. He took part in the frontier activities of the Black Hills and in the early 80's came to Minneapolis and entered the grain business.

DOTY.—Edward E. Doty died at Geneseo, N. Y., aged 66 years. He was head of the grain and produce firm of Belden & Co., with which he had been connected for 46 years.

DURDY.—A. C. Durdy died at his home in Brighton, Colo. For many years he had been prominent in the grain business at Ohlman, Ill.

EMMONS.—J. H. Emmons, who for a great many years conducted the elevator of the Orrville Milling Company at Newkirk, Ohio, died recently.

EUSTIS.—William Henry Eustis died on November 29 at Minneapolis, Minn. He was owner of the Flour Exchange and Corn Exchange Buildings.

FENNELLY.—J. J. Fennelly died on November 16. He was for years with the Hall-Baker Grain Company of Kansas City but retired because of poor health two years ago. His widow, son and daughter survive him.

GALBRAITH.—R. M. Galbraith, president of the Pease Hay Commission Company, Des Moines, Iowa, died on October 30. He died from heart trouble. In 1902 he bought his interest in the Pease Company then operated by J. S. and George A. Pease.

HARTE.—Ed S. Harte died from heart trouble at Boonville, Mo. He was at one time president of the Missouri Grain Dealers Association.

HARTZ.—W. H. Hartz died from heart trouble at Wyoming, Ill. For years he had been active in the grain business there.

KALMBACH.—C. D. Kalmbach, wholesale grain and flour merchant, died on December 8 following an operation. He was president of the Kalmbach-Burckett Commission Company, Inc., Shreveport, La., which he organized in 1920 and which was formerly the Kalmbach-Ford Company.

KAUFMAN.—Jacob Kaufman died aged 68 years from pneumonia. He was owner of the Kaufman Seed Company of Seattle, Wash. He went in 1900 to Seattle and opened a wholesale hay and grain business.

LANDRETH.—B. Landreth, president of the D. Landreth Seed Company, Bristol, Pa., died on December 2 aged 86 years.

LANGE.—L. J. Lange died recently. He was formerly associated with Lange & Hartzheim at Beaver Dam, Wis., but sold his interests in the feed business to L. Hartzheim.

LOCKE.—A. W. S. Locke died from heart trouble. He was a grain dealer at Eldorado, Ohio, for 20 years and for 35 in the coal business.

LOOMIS.—E. J. Loomis died on November 27 at Cambridge, N. Y. He was associated with the Jerome B. Rice Seed Company.

MAHONEY.—R. M. Mahoney died recently at Edmonton, Alta. He was local manager for the Alberta Pacific Grain Company.

MCLANATHAN.—C. P. McClanathan died on November 10. He was one of the old time grain dealers of Barre, Mass.

McMAHON.—John H. McMahon died on November 22 aged 76 years. He was a feed dealer of

Canisteo, N. Y. He and the late Judson Field organized the feed company of McMahon & Field. His widow and two children survive him.

MEADOWS.—O. E. Meadows, grain dealer of Crosbyton, Texas, died suddenly. His widow and four children survive him.

O'BRIEN.—John J. O'Brien, for more than 50 years on the Chicago Board of Trade, died at his home in Chicago. He began as telegraph messenger boy shortly after 1870. Twenty years later he was one of the most active traders on the floor of the Chicago exchange and handled large commissions for Joseph Leiter and James A. Patten.

PATTEN.—James A. Patten, veteran grain broker on the Chicago Board of Trade, and one of the most spectacular figures in its history, died on December 8 at his home in Evanston, Ill., from pneumonia.

POLLOCK.—Walter B. Pollock, treasurer of the New York Produce Exchange, died on November 20 at New York. He was 72 years old.

RILEY.—Charles B. Riley, secretary of the Indiana Grain Dealers Association, died on December

10 from influenza at Indianapolis, Ind., in the Methodist Hospital there.

REDFIELD.—H. L. Redfield died recently at Dallas, Texas. For a number of years he was in the grain and feed business.

ROBERTSON.—John J. Robertson died recently at St. Louis, Mo. He was for years prominent in the grain business there.

SMART.—A. J. Smart died from pneumonia on December 7. He was superintendent of the new elevator of the Toronto Elevator Company at Toronto, Ont.

SMITH.—Edwin H. Smith died on November 12 at Minneapolis. He was for 30 years connected with the American Linseed Company. He died from heart trouble.

TARBELL.—George F. Tarbell died on November 11. He was a member of the Boston Grain & Flour Exchange.

WENDERLY.—W. R. Wenderly was killed recently. He was manager of the Heard Elevator at Albion, Neb.

WHIPPLE.—E. Whipple died on November 8 at Evansville, Wis. He was in the grain business there for a number of years.

YEAGER.—Jacob Yeager died in an automobile accident. He was one of the organizers of the Bloom Farmers Elevator Company of Bloom (Jamestown p. o.), N. D.

ZIRKLE.—Frank K. Zirkle died from apoplexy at Washington, D. C. He was for years in the grain brokerage business there. He was 58 years old.

FIRES—CASUALTIES

Carnarvon, Iowa.—Fire destroyed the elevator of Ronald Meyers.

Beech Grove, Ind.—Fire destroyed the National Elevator "C" on November 3.

Fairfax, Okla.—The feed barn of Ballard & Palmer was damaged by fire.

Hebron, N. D.—Fire destroyed the Farmers Elevator with 35,000 bushels grain.

Ashville, Ohio.—Fire damaged the H. M. Crites Elevator. The damage was slight.

St. Louis, Mo.—Fire damaged the property of the North Market Feed & Coal Company.

Irene, S. D.—The Railey Arneson Elevator was destroyed by fire with a loss of \$20,000.

Arnold, near Jacksonville, Ill.—Fire destroyed the Farmers Elevator here with a loss of \$20,000.

Collinsville, Okla.—The hay barn owned by the Holloway-Grover Grain Company here burned.

Ninga, Man.—Fire destroyed the elevator of the Union Grain Growers with 15,000 bushels wheat.

Convoy, Ohio.—The Long & Marshall Elevator at this place burned on December 3 with a \$35,000 loss.

Cereal, Alta.—The Albert Pacific Grain Company's elevator here burned with a loss amounting to \$12,000.

Woodson, Ill.—Fire of undetermined cause destroyed the plant of the Woodson Farmers Elevator Company recently.

Scottsbluff, Neb.—The Mead Elevator was damaged by fire. Spontaneous combustion is said to have caused the fire.

Frontenac, Minn.—Fire on November 19 destroyed the elevator here, owned by C. E. Zimmerman. The loss was \$7,500.

Simpson, Sask.—The elevator here owned by the Canadian Consolidated Elevator Company, Ltd., was destroyed by fire.

Brandtsville (Boiling Springs p. o.), Pa.—Fire destroyed the warehouse of H. C. Zacharias together with 15 carloads feed.

Coates Grove, Mich.—The Smith Bros. & Velte Company's elevator was damaged by fire on September 18. The loss was slight.

De Kalb, Ill.—The old seed house of the De Kalb Soil Improvement Company burned. Considerable high grade seed corn burned.

Arnold, Ill.—The plant of the Co-operative Grain Company was completely destroyed by fire of unknown origin on November 22.

Boody, Ill.—The plant of the Boody & Blackland Farmers Co-operative Elevator Company was destroyed by fire of unknown origin recently.

Altoona, Pa.—The plant of the Adler Bros. was damaged by fire probably caused by boys smoking in the detached warehouse on November 30.

Stockton, Calif.—Fire damaged the Fabian-Fleisig

Warehouse on November 5, with a loss of \$125,000. Hay and grain were valued at \$110,000.

Seaforth, Minn.—The Farmers Elevator, half filled with grain, burned on November 6. The building and grain were covered by insurance.

Yoder, Ind.—Fire reported as of probable incendiary origin damaged slightly the plant of the Studabaker Grain & Seed Company on November 15.

Freeman, S. D.—On November 13 the grain elevators owned by John J. Pullman and the Farmers Grain & Stock Company burned with a loss of \$20,000.

Romeo, Mich.—The mill, grain elevator and coal sheds of the Knust Elevator here burned on November 14. The loss was more than \$25,000; insurance, \$10,000.

Glasgow Landing (Near Montezuma, p. o. Bedford), Ill.—Fire destroyed the elevator of the Turner Hudnut Company on November 26. Several thousand bushels of corn burned.

Lamanda Park, Calif.—Fire destroyed the warehouse and plant of the Ambler Grain & Milling Company, with a loss amounting to \$1,000,000. The fire occurred on November 16.

Montezuma (Bedford p. o.), Ill.—Fire destroyed the Smith-Hippin Elevator together with 7,000 bushels each of corn and oats. The fire started from an engine under the elevator.

Lakota, N. D.—Fire on November 9 destroyed a large elevator owned by the North Dakota Wheat Growers Association. It contained 30,000 bushels grain. The loss was \$40,000.

Herington, Kan.—Fire destroyed the elevator of the Robinson-Wyatt Grain Company which had a capacity of 30,000 bushels. It had 5,000 bushels grain in it at the time of the fire.

Carlisle, Pa.—The feed and grain warehouse of the Reading Company and a barn in which 4,000 bushels corn and 3,000 bushels potatoes were stored, burned on November 26. The cause of the fire is unknown.

Kinde, Mich.—Fire destroyed the property of the Bad Axe Grain Company and the Farmers Co-operative Grain Company. The origin of the fire is unknown. Some grain was stored in both of the elevator plants.

Vandalia, Ill.—Fire on October 31 destroyed two warehouse rooms at the elevator of the W. A. Elam Grain Company. It was replaced by fire resisting structures, one of which has been erected. The loss was \$3,000.

GRAIN procurements in Russia from November 1 to November 20 were 784,000 short tons or only 47 per cent of the amount planned for the month.

EFFECTIVE this month, by order of the French High Commission, the duty on United States wheat imported into Syria is reduced from 11 to 5½ per cent.

FIELD SEEDS

(Continued from Page 378)

year is indicated to be as follows: South Dakota, 150 per cent; Montana, 140 per cent; California, 108 per cent; Nebraska, 96 per cent; Oklahoma, 61 per cent; Kansas, 52 per cent; New Mexico, 48 per cent; Utah, 45 per cent; Texas, 27 per cent; and Idaho, 25 per cent. (Through an oversight no schedules were sent to the Arizona growers.) It should not be assumed from the foregoing figures that the relationship between production for the two years in each of the states is necessarily as shown because the figures are based only on the returns of the growers who filled out schedules and represent therefore only their relative production for the two years. Their production may or may not represent accurately the entire production in the respective states.

NEW SEED TRADEMARK

The following new seed trademark was published in the *Official Gazette* of the United States Patent

BUCKINGHAM PALACE

Office on December 4: "Buckingham Palace" lawn grass and field seeds. Whitney-Eckstein Seed Company, Buffalo, N. Y. Filed September 17, 1928. Serial No. 272,592.

INDIANA SEED NEWS

By W. B. CARLETON

Both wholesale and retail seed dealers of Indiana towns and cities say that while their trade at the present time is rather slow, they are looking for a gradual improvement after the first of the year.

J. A. McCarty, of the J. A. McCarty Seed Company at Evansville, has returned from Terre Haute, Ind., where he visited his branch seed and feed store that was established recently under the management of Frank Pritchett, formerly of Princeton, Ind. He says his new store is coming along all right.

The Swayzee Grain Company, of Swayzee, Ind., has filed articles of incorporation with the secretary of state at Indianapolis, the capital stock of the con-

cern being \$7,500. The incorporators are John D. Keifer, Walter D. Lavengood and E. E. Lavengood. The company will handle feeds and seeds.

Wholesale and retail seed dealers at Evansville were represented in the huge parade and celebration in that city on November 10, that was given in honor of Robert, Ray and Joseph Graham, large automobile manufacturers, who are building a million dollar plant in Evansville. It is estimated that 80,000 people saw the parade.

Sale to the highest bidder of the book accounts amounting to about \$2,900, of the Allendale Mill & Elevator Company, at Allendale, Ill., was asked in a petition by the receiver in the Wabash County Circuit Court at Mt. Carmel, Ill.

A corn show is being planned for Evansville that will be held late in December or early in January and many corn growers in southern Indiana, southern Illinois, and western and northern Kentucky are expected to attend.

The stock of the Worthington Feed Company at Worthington, Ind., has been moved into the Cornelius Building in that city, that was used formerly as the Worthington postoffice.

Cornmeal manufacturers in towns in southern Indiana are trying to get the farmers in that section to grow more Yellow corn, as they point out Yellow corn contains a higher food value for meal manufacturing than does White corn.

The wheat acreage in many of the counties in southern and central Indiana is about 80 per cent of last year, it has been estimated. The new wheat crop has gotten a good start and has grown rapidly during the mild weather of the past three months. The grain is well rooted and in good shape to stand winter weather.

Japan Clover is gaining in popularity of Jennings County, Ind., according to L. M. Youngblood, agricultural agent of that county. Floyd Potts, who preceded Mr. Youngblood as county agent, was from Kentucky and had seen Lespedeza, or Japan Clover, tried out and when he went to Jennings County as county agent a few years ago he began to boom this legume and each year for the past few years more of this Clover has been sown.

BADGER STATE SEED NEWS

By C. O. SKINROOD

The supply of Red Clover seed appears to be very scarce, according to the leading Milwaukee seed handlers. The demand has also been active for this season of the year. The Timothy supply appears to be very short also, the local seedsmen assert. The carry-over of Timothy seed was large but the yield of seeds for 1928 appears to be around 40 per cent of a normal yield. Thus the price is very firm and the trade is bullish for the future. Timothy seed prices have also ruled strong, the dealers find, is sympathy with other lines of seeds. Alsike is reported to be in a stronger market position than either Timothy or Clover seed. Sweet Clover is probably the most bullish of all the departments of the seed mar-

ket, the Milwaukee authorities on the market find, because of the very small amount of first-class seed which is available.

Another branch of the seed trade which is very bullish is that of Alfalfa, which has gone up approximately \$2 in the last 30 days. The supply appears to be scarce. The White Clover market is dull and nominal with little trading.

Wisconsin faces a decided seed shortage, according to the authorities of the Wisconsin College of Agriculture. The department is certifying seed from out of the state in carload lots for seed and weed factors. The college declares that as the season goes along it becomes more and more evident that there is a huge shortage of almost all stocks of farm seeds. Red Clover, the most widely used seed in the state, is reported as the scarcest in supply for many years. The production of this year and the carry-over in this line of seeds was very low.

The Door County Pure Bred Seed Growers Association staged one of its most successful shows for two days at Sturgeon Bay, Wis. Among the prizes supplied by the county board appropriation were those for 23 kinds of grains. Among the speakers were Prof. E. J. Delwiche of the College of Agriculture, and H. J. Rahnlow, the secretary of the Wisconsin Horticultural Society, who was the judge of the exhibits.

The final report on the Wisconsin Clover situation showed that the fields registered a condition of only 75 per cent late in the fall as compared with 82 per cent a year ago. The average of the yield of the fields of Clover which were harvested showed a return of about and a half bushels of seed. Only a very small acreage was finally harvested.

TIMOTHY SEED MOVING SLOWLY

Growers of Timothy seed were not free sellers during the two weeks ended November 27. The United States Bureau of Agricultural Economics estimates that 80 per cent to 85 per cent of the crop had been sold up to that date compared with 75 per cent last year and 85 per cent two years ago. During the two weeks movement was more active in southern Minnesota, eastern South Dakota and Illinois than in other important districts.

Prices declined about 5 cents per 100 pounds during the two weeks. On November 27 prices to growers ranged \$3.95 per 100 pounds, basis clean seed in eastern South Dakota and \$4.30 in southwestern Iowa to \$4.85 in southeastern Iowa and \$5 in northwestern Missouri. The average price was \$4.60 compared with \$4.55 a month ago and \$3 a year ago.

Exports of Timothy seed to Europe continued lighter than last year. During the two weeks ended December 1, about 82,900 pounds was exported from two Atlantic ports, in contrast with 996,800 pounds during the corresponding period last year.

AUTOMATIC SEED COUNTER

Hereafter counting seed for sampling and testing will not be the inaccurate and tedious task that it was at one time. A mechanical counter has been devised by scientists in the Bureau of Plant Industry of the United States Department of Agriculture. It is not patented and there is no restriction on its manufacture or use.

As illustrated and explained in Circular No. 53-C, "A Seed Counter," just published by the department (which may be secured by writing the United States Department of Agriculture at Washington, D. C.), the counter consists of a small metal box of brass. A brass plate forms the top of the box. In the plate are drilled 100 small holes in 10 rows of

(Continued on Page 385)

BUYERS AND SELLERS

Bag Lots or Carloads

Alfalfa, Clovers, Grasses, Field Seeds

ED. F. MANGELSDORF & BRO.

Wholesale Field and Grass Seeds

ST. LOUIS, MISSOURI

SEEDS BETTER SEEDS; BETTER CROPS
PRUNTY SEED & GRAIN CO.
9 South Main St. SAINT LOUIS

CHAPMAN'S Red Top

MEAT SCRAPS - - 50% PROTEIN

Digester Tankage - - 60% Protein—Great Specialty

SIDELINES FOR ELEVATORS

Special Odorless Bone Meal—Salt

RAW BONE MEAL — CALCIUM CARBONATE

Write or Wire

RIVERDALE PRODUCTS CO.

Offices: 105 West Adams Street, Chicago



60% Protein

10 each. The box is connected with a vacuum pump by which air is exhausted from the box as it streams in through the holes. To operate the counter, it is held with the perforated plate up, an excess of seed poured on the plate and the counter shaken gently until each hole is covered with a seed. If any hole is not covered or if two seeds are held at one hole, these irregularities would be adjusted with hand tweezers. The seeds are then held in place by the vacuum, and the box may be inverted and placed on the seed bed used for germination tests. The vacuum valve is then closed and the seeds drop off in regular spaces. The size of the holes in the plate will vary according to the size of the seed to be tested.

SEED GROWERS EXCHANGE REPORTS

A growth of from 200 to 600 members is registered by the Western South Dakota Alfalfa Seed Growers' Exchange, Rapid City, S. D., in the seven years since it was organized. The 1926 and 1927 pools of the exchange have been closed and returns made to the member producers. There was a total of 1,069,522 pounds of seeds in 24 of the 1926 pools, and 17 pools of the 1927 crop of seed, containing 227,351 pounds, sold for \$62,711, and of this amount 89 per cent was paid to the producers. Alfalfa seed, White and Yellow Sweet Clover seed is sold. The association makes a flat charge of three cents a pound on all seed handled.

NEW YEAR RULING ON SEEDS

W. L. Finger, American Trade Commissioner in France, reports that the fee for covering expenses incurred by the French government through regulations governing selection, packing, sealing, and analysis of forage seed samples imported for France, has been raised. The new rate is 6 francs per 100 kilos (220 pounds) with a minimum charge of 18 francs. Previously this fee was fixed at four francs per 100 kilos, with a minimum charge of 12 francs. A franc equals 3.9 cents. Effective January 1, 1929, the fee will be increased to 10 francs per 100 kilos, with a minimum charge of 22 francs for the samples of seeds subjected to artificial coloring.

NEW CLOVER SEED RATE ASKED

The South Dakota Farm Bureau Federation, of Huron, S. D., is plaintiff in case against the Chicago & Northwestern Railroad, in which appeal is made for more reasonable freight rates on Sweet Clover seed. The bureau asks the Interstate Commerce Commission to prescribe lower rates on carloads of this seed from South Dakota origin points to Minneapolis, St. Paul, Duluth, Fargo, Grand Forks, Chicago and Milwaukee. The ambitious shipping program of the bureau is further revealed by a list of other cities to which it wants lower seed rates. The list includes Sioux City, Omaha, St. Louis, and Kansas City.

MILLET SEED MOVEMENT ABOUT SAME AS LAST YEAR

The 1928 crop of millet seed has moved from the hands of growers at about the same rate as the 1927 and 1926 crops. The United States Bureau of Agricultural Economics estimates that about 35 per cent of the crop had left the hands of growers up to November 20. Growers in general were not free sellers. In the important producing districts, prices to growers averaged \$1.75, basis clean seed, or about 10 cents higher than a month ago and 20 cents higher than a year ago. The prices ranged 80 cents in northeastern Colorado and 90 cents in northeastern South Dakota to \$2.90 in central Tennessee. Late reports confirmed earlier ones regarding quality. In the majority of reports from country shippers, quality was reported as fair to good.

LESPEDeza SEED MOVEMENT AHEAD OF LAST YEAR

Early movement of Lespedeza seed from the hands of growers was somewhat faster than last year. Reports to the United States Bureau of Agricultural Economics indicate that 20 per cent to 25 per cent of the crop had left the hands of growers up to November 27, compared with 10 per cent last year and 20 per cent two and three years ago. Growers sold freely in some districts but preferred to hold for higher prices in others. Dealers were active buyers in nearly all districts. Move-

(Continued on Page 386)

COLORADO ALFALFA MEAL
All Grades and Grinds.
We specialize on Fine Ground for Poultry Mash.
Lamar Alfalfa Milling Co.
Lamar, Colorado

For Sale

ELEVATORS AND MILLS

WANT TO BUY

50-barrel Midget Flour Mill. Must be in good condition and price reasonable. PENNSYLVANIA, Box 11, care AMERICAN ELEVATOR AND GRAIN TRADE, 431 Dearborn St., Chicago, Ill.

FOR SALE

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ment was most rapid in northern Alabama and southern Louisiana and slowest in western Tennessee and southwestern Mississippi.

Prices were higher than last year and the year before but moved within a narrower range. On November 27, prices to growers ranged \$12 to \$14 per 100 pounds for re-cleaned seed, compared with \$6 to \$13 last year, and \$8 to \$12 two years ago. Prices averaged \$12 in western Tennessee, \$13 in northern Mississippi, northern Alabama and southern Louisiana and \$14 in southwestern Mississippi.

Although the crop was expected smaller than last year, good quality was indicated in the majority of reports. Shippers expected their shipments to be about 15 per cent smaller than they were last year.

RED AND ALSIKE CLOVER SEED MOVEMENT SLACKENING

Movement of Red and Alsike Clover seed from growers' hands slackened somewhat during the two weeks ended November 20, as growers tended to sell less freely and hulling was retarded in some districts by unfavorable weather. Total movement of Red Clover was equal to that of the 1927 crop but Alsike lagged behind the fairly rapid movement of a year ago. The United States Bureau of Agricultural Economics estimates that about 55 per cent of the Red Clover seed and 65 per cent of the Alsike Clover had been sold by growers up to November 20.

Advances in Red Clover seed prices in some districts were largely offset by declines in others with the result that prices averaged only about 5 cents per 100 pounds higher on November 20 than on November 6. Prices were about \$2.50 higher than a year ago and 55 cents higher than three years ago but \$3 lower than two years ago. With Alsike Clover, prices continued irregular in the different districts. These prices were about \$5 per 100 pounds higher than last year and 70 cents and \$6.60 higher, respectively, than two and three years ago.

ADULTERATED SEED ON MARKET

Adulterated or misbranded seed is still being handled by seedmen selling Redtop seed, says the United States Department of Agriculture. In examining Redtop seed in 436 mail samples and 113 purchased lots, the seed laboratory of the Bureau of Plant Industry found the seed from 27

firms to be adulterated or misbranded. In all cases Timothy seed was the principal adulterant, although some samples ran as high as 27 per cent dirt and chaff and some others as low as 49 per cent Redtop.

Names and addresses of the offending firms are published in the service and regulatory announcements by the department, in accordance with the act of Congress making appropriations for such investigations.

The Bureau of Plant Industry will continue to examine and report promptly as to the presence of adulterants and dodder in any sample of seed of grasses, Clover or Alfalfa, and lawn-grass seeds secured in the open market and submitted for such analysis. According to the location of the sender, these samples may be sent to the seed laboratory at Washington, D. C., or to any of the following co-operating laboratories: Co-operative Seed Laboratory, California State Department of Agriculture, Capitol Extension Building, Sacramento, Calif.; Co-operative Seed Laboratory, Oregon Agricultural College, Corvallis, Ore.; Co-operative Seed Laboratory, Purdue University Agricultural Experiment Station, La Fayette, Ind.; Co-operative Seed Laboratory, Missouri Agricultural Experiment Station, Columbia, Mo.

SWEET CLOVER SEED MOVEMENT AHEAD OF LAST YEAR

A moderate movement of Sweet Clover seed from the hands of growers occurred during the four weeks ended November 27. Growers were fairly free sellers and total movement continued ahead of last year. The United States Bureau of Agricultural Economics estimates that 65 to 70 per cent of the crop had left the hands of growers up to that date, compared with 55 per cent to 60 per cent on October 30, 55 per cent a year and 75 per cent two years ago.

In the main producing sections of Minnesota and the Dakotas 75 per cent to 85 per cent had moved, compared with 60 per cent to 65 per cent on October 30 and 60 per cent to 70 per cent a year ago. From October 30 to November 27, the heaviest movements took place in eastern North Dakota and northwestern Minnesota.

Prices to growers made an average advance of 5 cents per 100 pounds during the four weeks. They advanced 10 cents during the preceding four weeks and 25 cents during the corresponding period last

year. On November 27, prices in 15 districts or states averaged \$5.15 per 100 pounds, basis clean seed, compared with \$5.10 on October 30, \$5 on October 2, \$5.40 a year ago and \$9 two years ago.

Imports of White Sweet Clover for the period July 1 to November 30 amounted to 167,600 pounds, compared with \$538,500 last year and 977,700 pounds two years ago. During the same period, 3,800 pounds of Yellow Sweet Clover was imported in 1928, 38,200 in 1927 and 54,400 pounds in 1926.

A seed and flower store has been opened at Chadron, Neb., by W. Williams.

W. L. Traylor succeeds Vance Schultz as manager of the San Benito, Texas, store of the Reuter Seed Company.

The businesses of the Duthie Company and the Lewiston Seed Company of Lewiston, Idaho, have been merged.

The new store of the Cuff-Archias Seed Company at Indio, Calif., has been opened for business with A. H. Nickel in charge.

The old Cobb & Norton seed house at Redfield, S. D., which burned, has been rebuilt. The new house is about double the capacity of the old.

A new storage warehouse has been erected at Green Springs, Ohio, by the O. & M. Seed Company, with capacity of 15,000 bushels seed corn in bags.

D. P. Campbell is now with the Scott Seed Company at New Albany, Ind. He was formerly with the Lewis Implement & Seed Company of Louisville, Ky.

Carl A. Plett is succeeded as manager of the Portland, Ore., branch of the Charles A. Lilly Company, field, grass and garden seed house of Seattle, by L. H. Goodhue.

J. W. Morris, H. B. Yates, Mrs. J. E. Hurthal, J. H. Yates, C. A. Richards have incorporated at Roncerverte, W. Va., as the Valley Seed & Supply Company. Its capital stock is \$10,000.

W. H. Mihm is now with the Holmes-Letherman Seed Company of Canton, Ohio, as manager of the seed department. He resigned some time ago as treasurer of the J. Bolgiano Seed Company of Baltimore, Md.

Howard T. Sherrer has bought the Squires & Lincoln business at Lyndonville, Vt., owned by Herman A. Squires. Mr. Squires will continue to operate his farm seed, bulb and fertilizer business, using another building owned by him.

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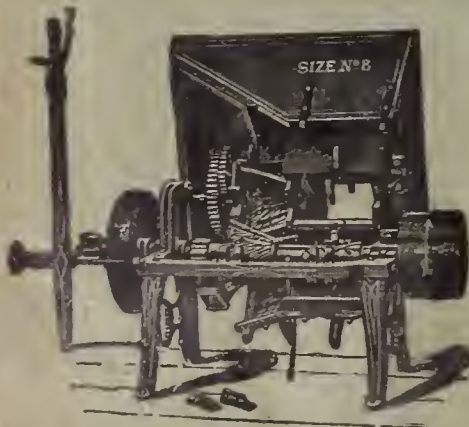
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